

SEQUENCE LISTING

<110> MCCARTHY, Sean A
FRASER, Christopher C
SHARP, John D
BARNES, Thomas S
KIRST, Susan J
MACKAY, Charles R
MYERS, Paul S
LEIBY, Kevin R
WRIGHTON, Nicholas
GOODEARL, Andrew
HOLTZMAN, Douglas A

<120> NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC,
DIAGNOSTIC, PREVENTIVE, THERAPEUTIC, AND OTHER USES

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<170> PatentIn Ver. 2.1

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Glu Phe Asp Val Ile Thr Leu Pro Thr Glu His Leu Gln Leu Phe His
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Ser Tyr Ile Ile Gln Leu Leu Glu Asn Ser Pro Val Gly Thr Leu Leu

Ile His Lys Gly Asp Ile Thr Leu Val Pro Thr Ile Asn Gly Thr Leu
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Thr Phe Gly Lys Asp Ser Pro Asn Asp Glu Asp Thr Gly Asp Thr Ser
850 855 860

Asp Arg Ser Asn Ser Leu Glu Arg Arg Lys Gly Pro Leu Pro Ala Lys
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Leu Leu Val Val Asn Glu Asp Asn Gly Glu Ile Ser Ile Gly Ala Thr
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Glu Phe Asp Val Ile Thr Leu Pro Thr Glu His Leu Gln Leu Phe His
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Ile Glu Val Glu Val Leu Asp Ile Asn Asp Asn Ser Pro Gln Phe Ser
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 35 40 45

Asp Ala Phe Gln Ile Leu Gln Leu Pro Gln Ala Leu Pro Val Gln Met
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Asn Ser Glu Asp Gly Leu Leu Ser Thr Ser Ser Arg Leu Asp Arg Glu
 65 70 75 80

Lys Leu Cys Arg Gln Glu Asp Pro Cys Leu Val Ser Phe Asp Val Leu
 85 90 95

Ala Thr Gly Ala Ser Ala Leu Ile His Val Glu Ile Gln Val Leu Asp
 100 105 110

Ile Asn Asp His Gln Pro Gln Phe Pro Lys Asp Glu Gln Glu Leu Glu
 115 120 125

Ile Ser Glu Ser Ala Ser Leu His Thr Arg Ile Pro Leu Asp Arg Ala
 130 135 140

Leu Asp Gln Asp Thr Gly Pro Asn Ser Leu Tyr Ser Tyr Ser Leu Ser
 145 150 155 160

Pro Ser Glu His Phe Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr
 165 170 175

Lys His Ala Glu Leu Val Val Val Lys Glu Leu Asp Arg Glu Leu His
 180 185 190

Ser Tyr Phe Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro
 195 200 205

Lys Ser Gly Ile Ser Val Val Lys Val Asn Val Leu Asp Ser Asn Asp
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Asn Ser Pro Val Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Pro Glu
 225 230 235 240

Asp Thr Val Pro Gly Thr Leu Leu Ile Asn Leu Thr Ala Thr Asp Pro
 245 250 255

Asp Gln Gly Pro Asn Gly Glu Val Glu Phe Phe Phe Gly Lys His Val
 260 265 270

Ser Pro Glu Val Met Asn Thr Phe Gly Ile Asp Ala Lys Thr Gly Gln
 275 280 285

Ile Ile Leu Arg Gln Ala Leu Asp Tyr Glu Lys Asn Pro Ala Tyr Glu
 290 295 300

Val Asp Val Gln Ala Arg Asp Leu Gly Pro Asn Ser Ile Pro Gly His
 305 310 315 320

Cys Lys Val Leu Ile Lys Val Leu Asp Val Asn Asp Asn Ala Pro Ser
 325 330 335

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 340 345 350

Pro Arg Asp Ser Phe Ile Ala Leu Val Ser Ala Asn Asp Leu Asp Ser
 355 360 365

Gly Asn Asn Gly Leu Val His Cys Trp Leu Asn Gln Glu Leu Gly His
 370 375 380

Phe Arg Leu Lys Arg Thr Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn
 385 390 395 400

Ala Thr Leu Asp Arg Glu Gln Trp Pro Ile Tyr Thr Leu Thr Val Phe
 405 410 415

Ala Gln Asp Gln Gly Pro Gln Pro Leu Ser Ala Glu Lys Glu Leu Gln
 420 425 430

Ile Gln Val Ser Asp Val Asn Asp Asn Ala Pro Val Phe Glu Lys Ser
435 440 445

Arg Tyr Glu Val Ser Thr Trp Glu Asn Asn Pro Pro Ser Leu His Leu
450 455 460

Ile Thr Leu Lys Ala His Asp Ala Asp Leu Gly Ser Asn Gly Lys Val
465 470 475 480

Ser Tyr Arg Ile Lys Asp Ser Pro Val Ser His Leu Val Ile Ile Asp
485 490 495

Phe Glu Thr Gly Glu Val Thr Ala Gln Arg Ser Leu Asp Tyr Glu Gln
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515 520 525

Gln Leu Ala Ser Ser Ile Ser Val Trp Val Ser Leu Leu Asp Ala Asn
530 535 540

Asp Asn Ala Pro Glu Val Ile Gln Pro Val Leu Ser Glu Gly Lys Ala
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Thr Leu Ser Val Leu Val Asn Ala Ser Thr Gly His Leu Leu Leu Pro
565 570 575

Ile Glu Asn Pro Ser Gly Met Asp Pro Ala Gly Thr Gly Ile Pro Pro
580 585 590

Lys Ala Thr His Ser Pro Trp Ser Phe Leu Leu Leu Thr Ile Val Ala
595 600 605

Arg Asp Ala Asp Ser Gly Ala Asn Gly Glu Leu Phe Tyr Ser Ile Gln
610 615 620

Ser Gly Asn Asp Ala His Leu Phe Phe Leu Ser Pro Ser Leu Gly Gln
625 630 635 640

Leu Phe Ile Asn Val Thr Asn Ala Ser Ser Leu Ile Gly Ser Gln Trp
645 650 655

Asp Leu Gly Ile Val Val Glu Asp Gln Gly Ser Pro Ser Leu Gln Thr
660 665 670

Gln Val Ser Leu Lys Val Val Phe Val Thr Ser Val Asp His Leu Arg
675 680 685

Asp Ser Ala His Glu Pro Gly Val Leu Ser Thr Pro Ala Leu Ala Leu
690 695 700

Ile Cys Leu Ala Val Leu Leu Ala Ile Phe Gly Leu Leu Leu Ala Leu
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Phe Val Ser Ile Cys Arg Thr Glu Arg Lys Asp Asn Arg Ala Tyr Asn
725 730 735

Cys Arg Glu Ala Glu Ser Ser Tyr Arg His Gln Pro Lys Arg Pro Gln
740 745 750

Lys His Ile Gln Lys Ala Asp Ile His Leu Val Pro Val Leu Arg Ala
755 760 765

His Glu Asn Glu Thr Asp Glu Val Arg Pro Ser His Lys Asp Thr Ser
770 775 780

Lys Glu Thr Leu Met Glu Ala Gly Trp Asp Ser Cys Leu Glu Ala Pro
785 790 795 800

Phe His Leu Thr Pro Thr Leu Tyr Arg Thr Leu Arg Asn Gln Gly Asn
805 810 815

Gln Gly Glu Leu Ala Glu Ser Gln Glu Val Leu Gln Asp Thr Phe Asn
820 825 830

Phe Leu Phe Asn His Pro Arg Gln Arg Asn Ala Ser Arg Glu Asn Leu
835 840 845

Asn Leu Pro Glu Ser Pro Pro Ala Val Arg Gln Pro Leu Leu Arg Pro
850 855 860

Leu Lys Val Pro Gly Ser Pro Ile Ala Arg Ala Thr Gly Asp Gln Asp
865 870 875 880

Lys Glu Glu Ala Pro Gln Ser Pro Pro Ala Ser Ser Ala Thr Leu Arg
885 890 895

Arg Gln Arg Asn Phe Asn Gly Lys Val Ser Pro Arg Gly Glu Ser Gly
900 905 910

Pro His Gln Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe
915 920 925

Ala Glu Arg Asn Pro Val Glu Glu Pro Ala Gly Asp Ser Pro Pro Val
930 935 940

Gln Gln Ile Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln
945 950 955 960

Pro Lys Pro Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly Gly
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Ser Ser Arg Gly Thr Ile Pro Asp Thr Glu Gly Leu Val Gly Leu Lys
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Pro Ser Gly Gln Ala Glu Pro Asp Leu Glu Glu Gly Pro Pro Ser Pro
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Ser Pro Pro Asp Pro Ala Trp Met Ala Arg Leu Ser Leu Pro Leu Thr
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Ser Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Thr Val Gly Pro
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Gly Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val
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Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Gly Gln His Thr Val
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Pro Val Glu Ala Ala Ser Ala Ala Leu Arg Arg Leu Ser Val Cys Gly
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 <212> PRT
 <213> Homo sapiens

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 20 25 30

Gly Gly Thr Gln Ile Thr Pro Leu Asn Asp Asn Val Thr Ile Phe Cys
 35 40 45

Asn Ile Phe Tyr Ser Gln Pro Leu Asn Ile Thr Ser Met Gly Ile Thr
 50 55 60

Trp Phe Trp Lys Ser Leu Thr Phe Asp Lys Glu Val Lys Val Phe Glu
 65 70 75 80

Phe Phe Gly Asp His Gln Glu Ala Phe Arg Pro Gly Ala Ile Val Ser
 85 90 95

Pro Trp Arg Leu Lys Ser Gly Asp Ala Ser Leu Arg Leu Pro Gly Ile
 100 105 110

Gln Leu Glu Glu Ala Gly Glu Tyr Arg Cys Glu Val Val Val Thr Pro
 115 120 125

Leu Lys Ala Gln Gly Thr Val Gln Leu Glu Val Val Ala Ser Pro Ala
 130 135 140

Ser Arg Leu Leu Leu Asp Gln Val Gly Met Lys Glu Asn Glu Asp Lys
 145 150 155 160

Tyr Met Cys Glu Ser Ser Gly Phe Tyr Pro Glu Ala Ile Asn Ile Thr
 165 170 175

Trp Glu Lys Gln Thr Gln Lys Phe Pro His Pro Ile Glu Ile Ser Glu
 180 185 190

290

295

300

Ser Pro Ser Gly Val Gly Asn Val Gly Cys Val Pro Ile Gln Phe Pro
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Ile Thr Glu Asp Leu Ala Val Thr Tyr His Leu Thr Ser Val Trp Trp
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Phe Val Thr Leu Gly
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<210> 55

<211> 24

<212> PRT

<213> Homo sapiens

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<211> 239

<212> PRT

<213> Homo sapiens

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Ile Thr Ser Met Gly Ile Thr Trp Phe Trp Lys Ser Leu Thr Phe Asp
 35 40 45

Lys Glu Val Lys Val Phe Glu Phe Phe Gly Asp His Gln Glu Ala Phe
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Arg Pro Gly Ala Ile Val Ser Pro Trp Arg Leu Lys Ser Gly Asp Ala
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Ile Thr Gly Pro Thr Ile Lys Asn Met Asp Gly Thr Phe Asn Val Thr
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Gln Cys Val Val
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<213> Homo sapiens

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Leu Ile

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<212> PRT

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<400> 71

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CCDS3594.1: Homo sapiens

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<212> PRT
<213> Homo sapiens

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His Thr Val Cys Glu Lys Thr Ile Thr Val Pro Lys Gly Lys Arg Leu
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Ile Leu Arg Leu Gly Asp Leu Asp Ile Glu Ser Gln Thr Cys Ala Ser
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Asp Tyr Leu Leu Phe Thr Ser Ser Ser Asp Gln Tyr Gly Pro Tyr Cys
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Gly Ser Met Thr Val Pro Lys Glu Leu Leu Leu Asn Thr Ser Glu Val
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Thr Val Arg Phe Glu Ser Gly Ser His Ile Ser Gly Arg Gly Phe Leu
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 Lys Thr Asp Cys Trp Lys Gln Ile Lys Tyr Pro Phe Ala Arg His Gln
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 Ser Ala Glu Phe Thr Ile Ser Tyr Asp Asn Glu Lys Glu Met Thr Gln
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His Pro Gly Thr Ser Asp Ser Tyr Ser Ala Pro Arg Asp Cys Leu Thr
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<211> 34
<212> PRT
<213> Homo sapiens

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Gln Ala

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<212> PRT
<213> Homo sapiens

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Val Cys Glu Lys Thr Ile Thr Val Pro Lys Gly Lys Arg Leu Ile Leu
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Arg Leu Gly Asp Leu Asp Ile Glu Ser Gln Thr Cys Ala Ser Asp Tyr
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Leu Leu Phe Thr Ser Ser Ser Asp Gln Tyr Gly Pro Tyr Cys Gly Ser

0050130-01004

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Trp Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser
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Ser Trp Asn Glu Ser Arg Asp Phe Cys Lys Gly Lys Gly Ser Thr Leu
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Ala Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr
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Asp Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg Glu Glu Lys
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Arg Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Asn Val Thr Asn
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<210> 86

<211> 187

<212> PRT

<213> Homo sapiens

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<210> 92
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<212> DNA
<213> Homo sapiens

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<212> PRT
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<210> 94
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 <213> Homo sapiens

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<211> 151
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 Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg Glu Glu Lys Arg
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<212> DNA
<213> Homo sapiens

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<210> 98
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<212> PRT
<213> Homo sapiens

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Lys Ser Asn Asp Gly Phe Thr Thr Thr Arg Ser Tyr Gly Thr Val Cys
          35             40             45

Pro Lys Asp Trp Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr

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55

60

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Ser Thr Leu Ala Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln
85 90 95

Asp Ile Thr Asp Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg
100 105 110

Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Asn
115 120 125

Val Thr Asn Gln Asn Gln Asn Phe Asn Cys Ala Thr Ile Gly Leu Thr
130 135 140

Lys Thr Phe Asp Ala Ala Ser Cys Asp Ile Ser Tyr Arg Arg Ile Cys
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Glu Lys Asn Ala Lys
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<210> 99

<211> 21

<212> PRT

<213> Homo sapiens

<400> 99

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Phe Leu Leu Tyr Phe
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<210> 100

<211> 138

<212> PRT

<213> Homo sapiens

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Phe Phe Leu Ser Thr Ser Glu Ser Ser Trp Asn Glu Ser Arg Asp Phe
 35 40 45

Cys Lys Gly Lys Gly Ser Thr Leu Ala Ile Val Asn Thr Pro Glu Lys
 50 55 60

Leu Lys Phe Leu Gln Asp Ile Thr Asp Ala Glu Lys Tyr Phe Ile Gly
 65 70 75 80

Leu Ile Tyr His Arg Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser
 85 90 95

Val Phe Asn Gly Asn Val Thr Asn Gln Asn Gln Asn Phe Asn Cys Ala
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Thr Ile Gly Leu Thr Lys Thr Phe Asp Ala Ala Ser Cys Asp Ile Ser
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Tyr Arg Arg Ile Cys Glu Lys Asn Ala Lys
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 <211> 3958
 <212> DNA
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 <212> DNA
 <213> Homo sapiens

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 <211> 155
 <212> PRT
 <213> Homo sapiens

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 Lys Ser Asn Asp Gly Phe Thr Thr Thr Arg Ser Tyr Gly Thr Val Cys
 35 40 45
 Pro Lys Asp Trp Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr
 50 55 60
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<210> 122
 <211> 645
 <212> DNA
 <213> Homo sapiens

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<400> 122
ctgtttcttg gtggtggttg aatggtgggc acagtggctg tcaactgtcat gcctcagtgg 60
agagtgtcgg ccttcattga aaacaacatc gtggtttttg aaaacttctg ggaaggactg 120
tggtatgaatt gcgtgaggca ggctaacatc aggatgcagt gcaaaatcta tgattccctg 180
ctggctcttt ctccggacct acaggcagcc agaggactga tgtgtgctgc ttccgtgatg 240
tccttcttggt ctttcattga ggccatcctt ggcatgaaat gcaccagggtg cacggggggac 300
aatgagaagg tgaaggctca cattctgctg acggctggaa tcatcttcat catcacgggc 360
atggtggtgc tcatccctgt gagctgggtt gccaatgcca tcatcagaga tttctataac 420
tcaatagtga atgttgccca aaaacgtgag cttggagaag ctctctactt aggatggacc 480
acggcactgg tgctgattgt tggaggagct ctgttctgct gcgttttttg ttgcaacgaa 540
aagagcagta gctacagata ctcgatacct tcccatcgca caacccaaaa aagttatcac 600
accggaaga agtcaccgag cgtctactcc agaagtcagt atgtg 645

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<210> 123
 <211> 215
 <212> PRT
 <213> Homo sapiens

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<400> 123
Leu Phe Leu Gly Gly Val Gly Met Val Gly Thr Val Ala Val Thr Val
1           5           10          15

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Met Pro Gln Trp Arg Val Ser Ala Phe Ile Glu Asn Asn Ile Val Val
 20 25 30
 Phe Glu Asn Phe Trp Glu Gly Leu Trp Met Asn Cys Val Arg Gln Ala
 35 40 45
 Asn Ile Arg Met Gln Cys Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser
 50 55 60
 Pro Asp Leu Gln Ala Ala Arg Gly Leu Met Cys Ala Ala Ser Val Met
 65 70 75 80
 Ser Phe Leu Ala Phe Met Met Ala Ile Leu Gly Met Lys Cys Thr Arg
 85 90 95
 Cys Thr Gly Asp Asn Glu Lys Val Lys Ala His Ile Leu Leu Thr Ala
 100 105 110
 Gly Ile Ile Phe Ile Ile Thr Gly Met Val Val Leu Ile Pro Val Ser
 115 120 125
 Trp Val Ala Asn Ala Ile Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn
 130 135 140
 Val Ala Gln Lys Arg Glu Leu Gly Glu Ala Leu Tyr Leu Gly Trp Thr
 145 150 155 160
 Thr Ala Leu Val Leu Ile Val Gly Gly Ala Leu Phe Cys Cys Val Phe
 165 170 175
 Cys Cys Asn Glu Lys Ser Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His
 180 185 190
 Arg Thr Thr Gln Lys Ser Tyr His Thr Gly Lys Lys Ser Pro Ser Val
 195 200 205
 Tyr Ser Arg Ser Gln Tyr Val
 210 215

<210> 124

<211> 24

<212> PRT

<213> Homo sapiens

<400> 124

Leu Phe Leu Gly Gly Val Gly Met Val Gly Thr Val Ala Val Thr Val
 1 5 10 15

Met Pro Gln Trp Arg Val Ser Ala
20

<210> 125

<211> 47

<212> PRT

<213> Homo sapiens

<400> 125

Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu Gly Leu
1 5 10 15

Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys Lys Ile
20 25 30

Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala Arg
35 40 45

<210> 126

<211> 21

<212> PRT

<213> Homo sapiens

<400> 126

Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met Met
1 5 10 15

Ala Ile Leu Gly Met
20

<210> 127

<211> 15

<212> PRT

<213> Homo sapiens

<400> 127

Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu Lys Val Lys Ala His
1 5 10 15

<210> 128

<211> 24

<212> PRT

<213> Homo sapiens

<400> 128

Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile Thr Gly Met Val Val
1 5 10 15

Leu Ile Pro Val Ser Trp Val Ala
20

<210> 129

<211> 22

<212> PRT

<213> Homo sapiens

<400> 129

Asn Ala Ile Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn Val Ala Gln
1 5 10 15

Lys Arg Glu Leu Gly Glu
20

<210> 130

<211> 25

<212> PRT

<213> Homo sapiens

<400> 130

Ala Leu Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile Val Gly Gly
1 5 10 15

Ala Leu Phe Cys Cys Val Phe Cys Cys
20 25

<210> 131

<211> 37

<212> PRT

<213> Homo sapiens

<400> 131

Asn Glu Lys Ser Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His Arg Thr
1 5 10 15

Thr Gln Lys Ser Tyr His Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser
20 25 30

Arg Ser Gln Tyr Val

<211> 225

<213> Mus sp.

Met Ala Thr Tyr Ala Leu Gln Met Ala Ala Leu Val Leu Gly Gly Val
1 5 10 15

Gly Met Val Gly Thr Val Ala Val Thr Ile Met Pro Gln Trp Arg Val
20 25 30

Ser Ala Phe Ile Glu Ser Asn Ile Val Val Phe Glu Asn Arg Trp Glu
35 40 45

Gly Leu Trp Met Asn Cys Met Arg His Ala Asn Ile Arg Met Gln Cys
50 55 60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ser
65 70 75 80

Arg Gly Leu Met Cys Ala Ala Ser Val Leu Ala Phe Leu Ala Phe Met
85 90 95

Thr Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asp Glu
100 105 110

Asn Val Lys Ser Arg Ile Leu Leu Thr Ala Gly Ile Ile Phe Phe Ile
115 120 125

Thr Gly Leu Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ser Ile
130 135 140

Ile Arg Asp Phe Tyr Asn Pro Leu Val Asp Val Ala Leu Lys Arg Glu
145 150 155 160

Leu Gly Glu Ala Leu Tyr Ile Gly Trp Thr Thr Ala Leu Val Leu Ile
165 170 175

Ala Gly Gly Ala Leu Phe Cys Cys Val Phe Cys Cys Thr Glu Arg Ser
180 185 190

Asn Ser Tyr Arg Tyr Ser Val Pro Ser His Arg Thr Thr Gln Arg Ser
195 200 205

Phe His Ala Glu Lys Arg Ser Pro Ser Ile Tyr Ser Lys Ser Gln Tyr
 210 215 220

Val
 225

<210> 133
 <211> 678
 <212> PRT
 <213> Mus sp.

<400> 133
 Ala Thr Gly Gly Cys Ala Ala Cys Cys Thr Ala Cys Gly Cys Thr Cys
 1 5 10 15

Thr Thr Cys Ala Ala Ala Thr Gly Gly Cys Thr Gly Cys Ala Cys Thr
 20 25 30

Gly Gly Thr Gly Cys Thr Thr Gly Gly Thr Gly Gly Thr Gly Thr Thr
 35 40 45

Gly Gly Cys Ala Thr Gly Gly Thr Gly Gly Gly Cys Ala Cys Gly Gly
 50 55 60

Thr Gly Gly Cys Thr Gly Thr Gly Ala Cys Thr Ala Thr Cys Ala Thr
 65 70 75 80

Gly Cys Cys Thr Cys Ala Gly Thr Gly Gly Ala Gly Ala Gly Thr Gly
 85 90 95

Thr Cys Thr Gly Cys Cys Thr Thr Cys Ala Thr Cys Gly Ala Ala Ala
 100 105 110

Gly Thr Ala Ala Cys Ala Thr Thr Gly Thr Gly Gly Thr Gly Thr Thr
 115 120 125

Thr Gly Ala Gly Ala Ala Cys Cys Gly Cys Thr Gly Gly Gly Ala Ala
 130 135 140

Gly Gly Cys Thr Thr Gly Thr Gly Gly Ala Thr Gly Ala Ala Thr Thr
 145 150 155 160

Gly Thr Ala Thr Gly Ala Gly Gly Cys Ala Thr Gly Cys Cys Ala Ala
 165 170 175

Cys Ala Thr Cys Ala Gly Ala Ala Thr Gly Cys Ala Gly Thr Gly Cys
 180 185 190

Ala Cys Cys Cys Ala Cys Thr Gly Gly Thr Gly Gly Ala Thr Gly Thr
450 455 460

Gly Gly Cys Cys Cys Thr Ala Ala Ala Gly Cys Gly Cys Gly Ala Gly
465 470 475 480

Cys Thr Gly Gly Gly Ala Gly Ala Ala Gly Cys Cys Cys Thr Cys Thr
485 490 495

Ala Cys Ala Thr Ala Gly Gly Cys Thr Gly Gly Ala Cys Cys Ala Cys
500 505 510

Ala Gly Cys Gly Cys Thr Gly Gly Thr Gly Cys Thr Gly Ala Thr Cys
515 520 525

Gly Cys Thr Gly Gly Ala Gly Gly Ala Gly Cys Ala Cys Thr Gly Thr
530 535 540

Thr Cys Thr Gly Thr Thr Gly Thr Gly Thr Gly Thr Thr Thr Thr Gly
545 550 555 560

Thr Thr Gly Thr Ala Cys Thr Gly Ala Ala Ala Gly Gly Ala Gly Cys
565 570 575

Ala Ala Cys Ala Gly Thr Thr Ala Cys Ala Gly Gly Thr Ala Cys Thr
580 585 590

Cys Gly Gly Thr Ala Cys Cys Ala Thr Cys Cys Cys Ala Thr Cys Gly
595 600 605

Cys Ala Cys Cys Ala Cys Thr Cys Ala Ala Cys Gly Gly Ala Gly Thr
610 615 620

Thr Thr Cys Cys Ala Cys Gly Cys Cys Gly Ala Ala Ala Ala Gly Ala
625 630 635 640

Gly Ala Thr Cys Thr Cys Cys Gly Ala Gly Cys Ala Thr Ala Thr Ala
645 650 655

Cys Thr Cys Cys Ala Ala Ala Ala Gly Thr Cys Ala Gly Thr Ala Thr
660 665 670

Gly Thr Gly Thr Ala Gly
675

<210> 134

225		230		235		240
Ala Gly Thr Cys Cys Ala Thr Thr Ala Cys Ala Cys Thr Gly Ala Ala	245	250	255			
Thr Ala Ala Ala Thr Ala Gly Ala Ala Cys Thr Cys Ala Ala Cys Thr	260	265	270			
Ala Thr Thr Gly Cys Thr Thr Thr Thr Cys Ala Gly Gly Gly Ala Ala	275	280	285			
Ala Thr Cys Ala Thr Gly Gly Ala Thr Ala Gly Gly Gly Thr Thr Gly	290	295	300			
Ala Ala Gly Ala Ala Gly Gly Thr Thr Ala Cys Thr Ala Thr Thr Ala	305	310	315			320
Ala Thr Thr Gly Thr Thr Thr Thr Ala Ala Ala Ala Cys Ala Gly	325	330	335			
Cys Thr Thr Ala Gly Gly Gly Ala Thr Thr Ala Ala Thr Gly Thr Cys	340	345	350			
Cys Thr Cys Cys Ala Thr Thr Thr Ala Thr Ala Ala Thr Gly Ala Ala	355	360	365			
Gly Ala Thr Thr Ala Ala Ala Ala Thr Gly Ala Ala Gly Gly Cys Thr	370	375	380			
Thr Thr Ala Ala Thr Cys Ala Gly Cys Ala Thr Thr Gly Thr Ala Ala	385	390	395			400
Ala Gly Gly Ala Ala Ala Thr Thr Gly Ala Ala Thr Gly Gly Cys Thr	405	410	415			
Thr Thr Cys Thr Gly Ala Thr Ala Thr Gly Cys Thr Gly Thr Thr Thr	420	425	430			
Thr Thr Thr Ala Gly Cys Cys Thr Ala Gly Gly Ala Gly Thr Thr Ala	435	440	445			
Gly Ala Ala Ala Thr Cys Cys Thr Ala Ala Cys Thr Thr Cys Thr Thr	450	455	460			
Thr Ala Thr Cys Cys Thr Cys Thr Thr Cys Thr Cys Cys Cys Ala Gly	465	470	475			480
Ala Gly Gly Cys Thr Thr Thr Thr Thr Thr Thr Thr Cys Thr Thr						

740	745	750
Gly Ala Gly Cys Ala Gly Ala Ala Ala Ala Ala Thr Ala Thr Gly Thr 755	760	765
Cys Thr Thr Gly Gly Thr Thr Thr Thr Cys Ala Thr Thr Thr Gly Cys 770	775	780
Thr Thr Ala Cys Cys Ala Ala Ala Ala Ala Ala Ala Cys Ala Ala Cys 785	790	795 800
Ala Ala Cys Ala Ala Ala Ala Ala Ala Ala Ala Gly Thr Thr Gly Thr Cys 805	810	815
Cys Thr Thr Thr Gly Ala Gly Ala Ala Cys Thr Thr Cys Ala Cys Cys 820	825	830
Thr Gly Cys Thr Cys Cys Thr Ala Thr Gly Thr Gly Gly Gly Thr Ala 835	840	845
Cys Cys Thr Gly Ala Gly Thr Cys Ala Ala Ala Ala Thr Thr Gly Thr 850	855	860
Cys Ala Thr Thr Thr Thr Thr Gly Thr Thr Cys Thr Gly Thr Gly Ala 865	870	875 880
Ala Ala Ala Ala Thr Ala Ala Ala Thr Thr Thr Cys Cys Thr Thr Cys 885	890	895
Thr Thr Gly Thr Ala Cys Cys Ala Thr Thr Thr Cys Thr Gly Thr Thr 900	905	910
Thr Ala Gly Thr Thr Thr Thr Ala Cys Thr Ala Ala Ala Ala Thr Cys 915	920	925
Thr Gly Thr Ala Ala Ala Thr Ala Cys Thr Gly Thr Ala Thr Thr Thr 930	935	940
Thr Thr Cys Thr Gly Thr Thr Thr Ala Thr Thr Cys Cys Ala Ala Ala 945	950	955 960
Thr Thr Thr Gly Ala Thr Gly Ala Ala Ala Cys Thr Gly Ala Cys Ala 965	970	975
Ala Thr Cys Cys Ala Ala Thr Thr Thr Gly Ala Ala Ala Gly Thr Thr 980	985	990
Thr Gly Thr Gly Thr Cys Gly Ala Cys Gly Thr Cys Thr Gly Thr Cys		

Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala
 115 120 125

Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile
 130 135 140

Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met
 145 150 155 160

Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu
 165 170 175

Gly Gly Gly Leu Leu Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro
 180 185 190

Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr
 195 200 205

Val

<210> 136

<211> 210

<212> PRT

<213> Mus sp.

<400> 136

Met Ala Ser Met Gly Leu Gln Val Leu Gly Ile Ser Leu Ala Val Leu
 1 5 10 15

Gly Trp Leu Gly Ile Ile Leu Ser Cys Ala Leu Pro Met Trp Arg Val
 20 25 30

Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ala Gln Thr Ser Trp Glu
 35 40 45

Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys
 50 55 60

Lys Met Tyr Asp Ser Met Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
 65 70 75 80

Arg Ala Leu Met Val Ile Ser Ile Ile Val Gly Ala Leu Gly Met Leu
 85 90 95

Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Met Glu Asp Glu Thr
 100 105 110

Val Lys Ala Lys Ile Met Ile Thr Ala Gly Ala Val Phe Ile Val Ala
 115 120 125

Ser Met Leu Ile Met Val Pro Val Ser Trp Thr Ala His Asn Val Ile
 130 135 140

Arg Asp Phe Tyr Asn Pro Met Val Ala Ser Gly Gln Lys Arg Glu Met
 145 150 155 160

Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu
 165 170 175

Gly Gly Gly Leu Leu Cys Cys Ser Cys Pro Pro Arg Ser Asn Asp Lys
 180 185 190

Pro Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Val Pro Ala Ser Asn
 195 200 205

Tyr Val
 210

<210> 137
 <211> 248
 <212> PRT
 <213> Rattus sp.

<400> 137
 Met Ser Met Ser Leu Glu Ile Thr Gly Thr Ser Leu Ala Val Leu Gly
 1 5 10 15

Trp Leu Cys Thr Ile Val Cys Cys Ala Leu Pro Met Trp Arg Val Ser
 20 25 30

Ala Phe Ile Gly Ser Ser Ile Ile Thr Ala Gln Ile Thr Trp Glu Gly
 35 40 45

Leu Trp Met Asn Cys Val Gln Ser Thr Gly Gln Met Gln Cys Lys Met
 50 55 60

Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala Arg Ala
 65 70 75 80

Leu Ile Val Val Ser Ile Leu Leu Ala Ala Phe Gly Leu Leu Val Ala
 85 90 95

Leu Val Gly Ala Gln Cys Thr Asn Cys Val Gln Asp Glu Thr Ala Lys

Ala	Lys	Ile	Thr	Ile	Val	Ala	Gly	Val	Leu	Phe	Leu	Leu	Ala	Ala	Val
		115					120					125			
Leu	Thr	Leu	Val	Pro	Val	Ser	Trp	Ser	Ala	Asn	Thr	Ile	Ile	Arg	Asp
	130					135					140				
Phe	Tyr	Asn	Pro	Leu	Val	Pro	Glu	Ala	Gln	Lys	Arg	Glu	Met	Gly	Thr
145					150					155				160	
Gly	Leu	Tyr	Val	Gly	Trp	Ala	Ala	Ala	Ala	Leu	Gln	Leu	Leu	Gly	Gly
				165					170					175	
Ala	Leu	Leu	Cys	Cys	Ser	Cys	Pro	Pro	Arg	Glu	Lys	Tyr	Ala	Pro	Thr
			180						185					190	
Lys	Ile	Leu	Tyr	Ser	Ala	Pro	Arg	Ser	Thr	Gly	Pro	Gly	Thr	Gly	Thr
	195						200					205			
Gly	Thr	Ala	Tyr	Asp	Arg	Lys	Thr	Thr	Ser	Glu	Arg	Pro	Gly	Ala	Arg
	210					215					220				
Thr	Pro	His	His	His	His	Tyr	Gln	Pro	Ser	Met	Tyr	Pro	Thr	Arg	Pro
225					230					235					240
Ala	Cys	Ser	Leu	Ala	Ser	Glu	Thr								
					245										
<210>	138														
<211>	191														
<212>	PRT														
<213>	Homo sapiens														
<400>	138														
Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn	Phe	Trp	Glu	Gly	Leu
1				5					10					15	
Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile	Arg	Met	Gln	Cys	Lys	Ile
			20					25					30		
Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro	Asp	Leu	Gln	Ala	Ala	Arg	Gly
		35					40					45			
Leu	Met	Cys	Ala	Ala	Ser	Val	Met	Ser	Phe	Leu	Ala	Phe	Met	Met	Ala
	50					55					60				

<210> 142
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 142
 atgagggtca tcatggggat agccagcctg gggttcctct gggcagtatt cctgcttcct 60
 cttgtgtttg gggccccac agaggagact acctttggag aatctgtggc ctcccatctc 120
 cccaaaggct gtcgacgatg ctgtgacccc gaggacctga tgcctctga tgatacggtc 180
 caggcccctg tttcccctta tgcctgcct gaagtcaggc cgtacctcg cgcgaccac 240

<210> 143
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 143
 Met Arg Val Ile Met Gly Ile Ala Ser Leu Gly Phe Leu Trp Ala Val
 1 5 10 15
 Phe Leu Leu Pro Leu Val Phe Gly Val Pro Thr Glu Glu Thr Thr Phe
 20 25 30
 Gly Glu Ser Val Ala Ser His Leu Pro Lys Gly Cys Arg Arg Cys Cys
 35 40 45
 Asp Pro Glu Asp Leu Met Ser Ser Asp Asp Thr Val Gln Ala Pro Val
 50 55 60
 Ser Pro Tyr Val Leu Pro Glu Val Arg Pro Tyr Leu Gly Arg Asp His
 65 70 75 80

<210> 144
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 144
 Met Arg Val Ile Met Gly Ile Ala Ser Leu Gly Phe Leu Trp Ala Val
 1 5 10 15
 Phe Leu Leu Pro Leu Val Phe Gly

<210> 145

<211> 56

<212> PRT

<213> Homo sapiens

<400> 145

Val	Pro	Thr	Glu	Glu	Thr	Thr	Phe	Gly	Glu	Ser	Val	Ala	Ser	His	Leu
1				5					10					15	

Pro	Lys	Gly	Cys	Arg	Arg	Cys	Cys	Asp	Pro	Glu	Asp	Leu	Met	Ser	Ser
			20					25					30		

Asp	Asp	Thr	Val	Gln	Ala	Pro	Val	Ser	Pro	Tyr	Val	Leu	Pro	Glu	Val
		35					40					45			

Arg	Pro	Tyr	Leu	Gly	Arg	Asp	His
	50					55	

<210> 146

<400> 146

000

<210> 147

<400> 147

000

<210> 148

<400> 148

000

<210> 149

<400> 149

000

<210> 150

<400> 150

000

<210> 151

<211> 546
 <212> DNA
 <213> Homo sapiens

<400> 151
 cggacgcgtg ggcggacgcg tgggggttatt tctttggttg ttaggtataa tatgggcatt 60
 taaaaacaac acccagtttt gtacttgat aagtatggaa ttcttatata ggattgttgt 120
 tggattcatt cttatcttta ctttttttaa tattaaggga cagaatacca agtgtccaat 180
 gtcttggttat tatattgtta gggacttggg cactttgggg atattgactg tattctgggt 240
 ttgccccctc actattttta atccagacta ttttatacct atcagtataa ctatagttct 300
 tactcttctt cttggaattc tttttcttat tgtttattat gggagttttc acccaaacag 360
 aagtgcagaa acaaaatgtg atgaaattga tggaaaacca gttctaagag aatgtagaat 420
 gagatatttc ctaatggaat aagctattca tttatgatat atattttctt atattttggt 480
 tcattgggta gtaaagaaaa tgtgtgttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 540
 aaaaaa 546

<210> 152
 <211> 345
 <212> DNA
 <213> Homo sapiens

<400> 152
 atggaattct tatataggat tgttggttga ttcattctta tctttacatt ttttaatat 60
 aaggacaga ataccaagtg tccaatgtct tgttattata ttgttagggt actgggcact 120
 ttggggatat tgactgtatt ctgggtttgc cccctcacta tttttaatcc agactatttt 180
 atacctatca gtataactat agttcttact cttcttcttg gaattctttt tcttattggt 240
 tattatggga gttttcaccc aaacagaagt gcagaaacaa aatgtgatga aattgatgga 300
 aaaccagttc taagagaatg tagaatgaga tatttcctaa tggaa 345

<210> 153
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 153
 Met Glu Phe Leu Tyr Arg Ile Val Val Gly Phe Ile Leu Ile Phe Thr
 1 5 10 15
 Phe Phe Asn Ile Lys Gly Gln Asn Thr Lys Cys Pro Met Ser Cys Tyr
 20 25 30
 Tyr Ile Val Arg Val Leu Gly Thr Leu Gly Ile Leu Thr Val Phe Trp
 35 40 45
 Val Cys Pro Leu Thr Ile Phe Asn Pro Asp Tyr Phe Ile Pro Ile Ser
 50 55 60

Ile Thr Ile Val Leu Thr Leu Leu Leu Gly Ile Leu Phe Leu Ile Val
65 70 75 80

Tyr Tyr Gly Ser Phe His Pro Asn Arg Ser Ala Glu Thr Lys Cys Asp
85 90 95

Glu Ile Asp Gly Lys Pro Val Leu Arg Glu Cys Arg Met Arg Tyr Phe
100 105 110

Leu Met Glu
115

<210> 154
<211> 22
<212> PRT
<213> Homo sapiens

<400> 154
Met Glu Phe Leu Tyr Arg Ile Val Val Gly Phe Ile Leu Ile Phe Thr
1 5 10 15

Phe Phe Asn Ile Lys Gly
20

<210> 155
<211> 93
<212> PRT
<213> Homo sapiens

<400> 155
Gln Asn Thr Lys Cys Pro Met Ser Cys Tyr Tyr Ile Val Arg Val Leu
1 5 10 15

Gly Thr Leu Gly Ile Leu Thr Val Phe Trp Val Cys Pro Leu Thr Ile
20 25 30

Phe Asn Pro Asp Tyr Phe Ile Pro Ile Ser Ile Thr Ile Val Leu Thr
35 40 45

Leu Leu Leu Gly Ile Leu Phe Leu Ile Val Tyr Tyr Gly Ser Phe His
50 55 60

Pro Asn Arg Ser Ala Glu Thr Lys Cys Asp Glu Ile Asp Gly Lys Pro
65 70 75 80

Val Leu Arg Glu Cys Arg Met Arg Tyr Phe Leu Met Glu
 85 90

<210> 156
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 156
 Gln Asn Thr Lys Cys Pro Met Ser Cys
 1 5

<210> 157
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 157
 Tyr Tyr Ile Val Arg Val Leu Gly Thr Leu Gly Ile Leu Thr Val Phe
 1 5 10 15

Trp Val

<210> 158
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 158
 Cys Pro Leu Thr Ile Phe Asn Pro Asp
 1 5

<210> 159
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 159
 Tyr Phe Ile Pro Ile Ser Ile Thr Ile Val Leu Thr Leu Leu Leu Gly
 1 5 10 15

Ile Leu Phe Leu Ile Val Tyr Tyr
 20

<210> 167
<400> 167
000

<210> 168
<400> 168
000

<210> 169
<400> 169
000

<210> 170
<400> 170
000

<210> 171
<211> 1684
<212> DNA
<213> Homo sapiens

<400> 171
cggacgcggt gggcggacgc gtgggcagct gaagaaagag aggaatgaag cgccttctgc 60
ttctgttttt gttctttata acattttctt ctgcatttcc cttagtccgg atgacggaaa 120
atgaagaaaa tatgcaactg gctcaggcat atctcaacca gttctactct cttgaaatag 180
aagggaatca tcttggttcaa agcaagaata ggagtctcat agatgacaaa attcgggaaa 240
tgcaagcatt ttttggttg acagtgactg gaaaactgga ctcaaacacc cttgagatca 300
tgaagacacc caggtgtggg gtgcctgatg tgggccagta tggctacacc ctccctgggt 360
ggagaaaata caacctcacc tacagaataa taaactatac tccggatatg gcacgagctg 420
ctgtggatga ggctatccaa gaaggtttag aagtgtggag caaagtcact ccactaaaat 480
tcaccaagat ttcaaagggg attgcagaca tcatgattgc ctttaggact cgagtccatg 540
gtcgggtgtcc tcgctatttt gatggtccct tgggagtgct tggccatgcc ttccctcctg 600
gtccgggtct ggggtggtgac actcattttg atgaggatga aaactggacc aaggatggag 660
caggattcaa cttgtttctt gtggctgctc atgaatttgg tcatgcactg gggctctctc 720
actccaatga tcaaacagcc ttgatgttcc caaattatgt ctccctggat cccagaaaat 780
accactttc tcaggatgat atcaatggaa tccagtccat ctatggaggt ctgcctaagg 840
tacctgctaa gccaaaggaa cccactatac cccatgcctg tgaccctgac ttgacttttg 900
acgctatcac aactttccgc agagaagtaa tgttctttta aggcaggcac ctatggagga 960
tctattatga tatcacggat gttgagtttg aattaattgc ttcattctgg ccatctctgc 1020
cagctgatct gcaagctgca tacgagaacc ccagagataa gattctggtt tttaaagatg 1080
aaaacttctg gatgatcaga ggatatgctg tcttgccaga ttatcccaaa tccatccata 1140
cattaggttt tccaggacgt gtgaagaaaa tagatgcagc cgtctgtgat aagaccacaa 1200
gaaaaacctt cttctttgtg ggcatttggg gctggaggtt tgatgaaatg acccaaacca 1260
tggacaaagg attcccgcag agagtggtaa aacactttcc tggaatcagt atccgtgttg 1320

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atgctgcttt ccagtacaaa ggattcttct ttttcagccg tggatcaaag caatttgaat 1380
acaacattaa gacaaagaat attacccgaa tcatgagaac taatacttgg tttcaatgca 1440
aagaacccaaa gaactcctca tttggttttg atatcaacaa ggaaaaagca cattcaggag 1500
gcataaagat attgtatcat aagagtttaa gcttgtttat ttttggattt gttcatttgc 1560
tgaaaaaacac ttctattttat caataaattc atagacctaa aataaacctc aacagggtctt 1620
ttaatatataa ttctgcttca aaatagaata aaaccattct ttaacaacaa aaaaaaaaaa 1680
aaaa
1684

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<210> 172
<211> 1542
<212> DNA
<213> Homo sapiens

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<400> 172
atgaagcgcc ttctgcttct gtttttgttc tttataacat tttcttctgc atttccctta 60
gtccggatga cggaaaaatga agaaaaatatg caactggctc aggcataatct caaccagttc 120
tactctcttg aaatagaagg gaatcatctt gttcaaagca agaataaggag tctcatagat 180
gacaaaattc gggaaatgca agcatttttt ggattgacag tgactggaaa actggactca 240
aacacccttg agatcatgaa gacacccagg tgtggggtgc ctgatgtggg ccagtatggc 300
tacaccctcc ctgggtggag aaaatacaac ctcacctaca gaataataaa ctatactccg 360
gatatggcac gagctgctgt ggatgaggct atccaagaag gtttagaagt gtggagcaaa 420
gtcactccac taaaattcac caagatttca aaggggattg cagacatcat gattgccttt 480
aggactcgag tccatggtcg gtgtcctcgc tattttgatg gtcccttggg agtgcttggc 540
catgcctttc ctctggtcc ggggtctgggt ggtgacactc attttgatga ggatgaaaaac 600
tggaccaagg atggagcagg attcaacttg tttcttgtgg ctgctcatga atttggatcat 660
gcactggggc tctctcactc caatgatcaa acagccttga tgttcccaa ttatgtctcc 720
ctggatccca gaaaataccc acttttctcag gatgatata atggaatcca gtccatctat 780
ggagggtctgc ctaagggtacc tgctaagcca aaggaaccca ctatacccca tgccctgtgac 840
cctgacttga cttttgacgc tatcacaact ttccgcagag aagtaatgtt ctttaaaggc 900
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cccaaatacca tccatacatt aggtttttcca ggacgtgtga agaaaataga tgcagccgtc 1140
tgtgataaga ccacaagaaa aacctacttc tttgtgggca tttggtgctg gaggtttgat 1200
gaaatgaccc aaacatgga caaaggattc ccgcagagag tggtaaaaca ctttcctgga 1260
atcagtatcc gtgttgatgc tgctttccag taaaaggat tcttcttttt cagccgtgga 1320
tcaaagcaat ttgaatacaa cattaagaca aagaatatta cccgaatcat gagaactaat 1380
acttggtttc aatgcaaaga accaaagaac tcctcatttg gttttgatat caacaaggaa 1440
aaagcacatt caggaggcat aaagatattg tatcataaga gtttaagctt gtttatTTTT 1500
ggatttggtc atttgctgaa aaacacttct atttatcaat aa
1542

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<210> 173
<211> 513
<212> PRT
<213> Homo sapiens

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<400> 173

Met Lys Arg Leu Leu Leu Leu Phe Leu Phe Phe Ile Thr Phe Ser Ser
1 5 10 15

Ala Phe Pro Leu Val Arg Met Thr Glu Asn Glu Glu Asn Met Gln Leu
20 25 30

Ala Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Asn
35 40 45

His Leu Val Gln Ser Lys Asn Arg Ser Leu Ile Asp Asp Lys Ile Arg
50 55 60

Glu Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser
65 70 75 80

Asn Thr Leu Glu Ile Met Lys Thr Pro Arg Cys Gly Val Pro Asp Val
85 90 95

Gly Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Asn Leu Thr
100 105 110

Tyr Arg Ile Ile Asn Tyr Thr Pro Asp Met Ala Arg Ala Ala Val Asp
115 120 125

Glu Ala Ile Gln Glu Gly Leu Glu Val Trp Ser Lys Val Thr Pro Leu
130 135 140

Lys Phe Thr Lys Ile Ser Lys Gly Ile Ala Asp Ile Met Ile Ala Phe
145 150 155 160

Arg Thr Arg Val His Gly Arg Cys Pro Arg Tyr Phe Asp Gly Pro Leu
165 170 175

Gly Val Leu Gly His Ala Phe Pro Pro Gly Pro Gly Leu Gly Gly Asp
180 185 190

Thr His Phe Asp Glu Asp Glu Asn Trp Thr Lys Asp Gly Ala Gly Phe
195 200 205

Asn Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ala Leu Gly Leu
210 215 220

Ser His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Val Ser
225 230 235 240

Leu Asp Pro Arg Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asn Gly Ile
245 250 255

Gln Ser Ile Tyr Gly Gly Leu Pro Lys Val Pro Ala Lys Pro Lys Glu
 260 265 270
 Pro Thr Ile Pro His Ala Cys Asp Pro Asp Leu Thr Phe Asp Ala Ile
 275 280 285
 Thr Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp
 290 295 300
 Arg Ile Tyr Tyr Asp Ile Thr Asp Val Glu Phe Glu Leu Ile Ala Ser
 305 310 315 320
 Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Asn Pro
 325 330 335
 Arg Asp Lys Ile Leu Val Phe Lys Asp Glu Asn Phe Trp Met Ile Arg
 340 345 350
 Gly Tyr Ala Val Leu Pro Asp Tyr Pro Lys Ser Ile His Thr Leu Gly
 355 360 365
 Phe Pro Gly Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp Lys Thr
 370 375 380
 Thr Arg Lys Thr Tyr Phe Phe Val Gly Ile Trp Cys Trp Arg Phe Asp
 385 390 395 400
 Glu Met Thr Gln Thr Met Asp Lys Gly Phe Pro Gln Arg Val Val Lys
 405 410 415
 His Phe Pro Gly Ile Ser Ile Arg Val Asp Ala Ala Phe Gln Tyr Lys
 420 425 430
 Gly Phe Phe Phe Phe Ser Arg Gly Ser Lys Gln Phe Glu Tyr Asn Ile
 435 440 445
 Lys Thr Lys Asn Ile Thr Arg Ile Met Arg Thr Asn Thr Trp Phe Gln
 450 455 460
 Cys Lys Glu Pro Lys Asn Ser Ser Phe Gly Phe Asp Ile Asn Lys Glu
 465 470 475 480
 Lys Ala His Ser Gly Gly Ile Lys Ile Leu Tyr His Lys Ser Leu Ser
 485 490 495
 Leu Phe Ile Phe Gly Ile Val His Leu Leu Lys Asn Thr Ser Ile Tyr
 500 505 510

00250130-014301

Gln

<210> 174

<211> 17

<212> PRT

<213> Homo sapiens

<400> 174

Met Lys Arg Leu Leu Leu Leu Phe Leu Phe Phe Ile Thr Phe Ser Ser
1 5 10 15

Ala

<210> 175

<211> 291

<212> PRT

<213> Homo sapiens

<400> 175

Phe Pro Leu Val Arg Met Thr Glu Asn Glu Glu Asn Met Gln Leu Ala
1 5 10 15

Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Asn His
20 25 30

Leu Val Gln Ser Lys Asn Arg Ser Leu Ile Asp Asp Lys Ile Arg Glu
35 40 45

Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser Asn
50 55 60

Thr Leu Glu Ile Met Lys Thr Pro Arg Cys Gly Val Pro Asp Val Gly
65 70 75 80

Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Asn Leu Thr Tyr
85 90 95

Arg Ile Ile Asn Tyr Thr Pro Asp Met Ala Arg Ala Ala Val Asp Glu
100 105 110

Ala Ile Gln Glu Gly Leu Glu Val Trp Ser Lys Val Thr Pro Leu Lys
115 120 125

Phe Thr Lys Ile Ser Lys Gly Ile Ala Asp Ile Met Ile Ala Phe Arg
 130 135 140
 Thr Arg Val His Gly Arg Cys Pro Arg Tyr Phe Asp Gly Pro Leu Gly
 145 150 155 160
 Val Leu Gly His Ala Phe Pro Pro Gly Pro Gly Leu Gly Gly Asp Thr
 165 170 175
 His Phe Asp Glu Asp Glu Asn Trp Thr Lys Asp Gly Ala Gly Phe Asn
 180 185 190
 Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ala Leu Gly Leu Ser
 195 200 205
 His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Val Ser Leu
 210 215 220
 Asp Pro Arg Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asn Gly Ile Gln
 225 230 235 240
 Ser Ile Tyr Gly Gly Leu Pro Lys Val Pro Ala Lys Pro Lys Glu Pro
 245 250 255
 Thr Ile Pro His Ala Cys Asp Pro Asp Leu Thr Phe Asp Ala Ile Thr
 260 265 270
 Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp Arg
 275 280 285
 Ile Tyr Tyr
 290

<210> 176

<211> 467

<212> PRT

<213> Homo sapiens

<400> 176

Met Phe Ser Leu Lys Thr Leu Pro Phe Leu Leu Leu Leu His Val Gln
 1 5 10 15
 Ile Ser Lys Ala Phe Pro Val Ser Ser Lys Glu Lys Asn Thr Lys Thr
 20 25 30
 Val Gln Asp Tyr Leu Glu Lys Phe Tyr Gln Leu Pro Ser Asn Gln Tyr
 35 40 45

102250-04163200

Gln	Ser	Thr	Arg	Lys	Asn	Gly	Thr	Asn	Val	Ile	Val	Glu	Lys	Leu	Lys	50	55	60	
Glu	Met	Gln	Arg	Phe	Phe	Gly	Leu	Asn	Val	Thr	Gly	Lys	Pro	Asn	Glu	65	70	75	80
Glu	Thr	Leu	Asp	Met	Met	Lys	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	Ser	85	90	95	
Gly	Gly	Phe	Met	Leu	Thr	Pro	Gly	Asn	Pro	Lys	Trp	Glu	Arg	Thr	Asn	100	105	110	
Leu	Thr	Tyr	Arg	Ile	Arg	Asn	Tyr	Thr	Pro	Gln	Leu	Ser	Glu	Ala	Glu	115	120	125	
Val	Glu	Arg	Ala	Ile	Lys	Asp	Ala	Phe	Glu	Leu	Trp	Ser	Val	Ala	Ser	130	135	140	
Pro	Leu	Ile	Phe	Thr	Arg	Ile	Ser	Gln	Gly	Glu	Ala	Asp	Ile	Asn	Ile	145	150	155	160
Ala	Phe	Tyr	Gln	Arg	Asp	His	Gly	Asp	Asn	Ser	Pro	Phe	Asp	Gly	Pro	165	170	175	
Asn	Gly	Ile	Leu	Ala	His	Ala	Phe	Gln	Pro	Gly	Gln	Gly	Ile	Gly	Gly	180	185	190	
Asp	Ala	His	Phe	Asp	Ala	Glu	Glu	Thr	Trp	Thr	Asn	Thr	Ser	Ala	Asn	195	200	205	
Tyr	Asn	Leu	Phe	Leu	Val	Ala	Ala	His	Glu	Phe	Gly	His	Ser	Leu	Gly	210	215	220	
Leu	Ala	His	Ser	Ser	Asp	Pro	Gly	Ala	Leu	Met	Tyr	Pro	Asn	Tyr	Ala	225	230	235	240
Phe	Arg	Glu	Thr	Ser	Asn	Tyr	Ser	Leu	Pro	Gln	Asp	Asp	Ile	Asp	Gly	245	250	255	
Ile	Gln	Ala	Ile	Tyr	Gly	Leu	Ser	Ser	Asn	Pro	Ile	Gln	Pro	Thr	Gly	260	265	270	
Pro	Ser	Thr	Pro	Lys	Pro	Cys	Asp	Pro	Ser	Leu	Thr	Phe	Asp	Ala	Ile	275	280	285	
Thr	Thr	Leu	Arg	Gly	Glu	Ile	Leu	Phe	Phe	Lys	Asp	Arg	Tyr	Phe	Trp	290	295	300	

290		295		300
Cys Cys Cys Cys Ala Gly Gly Ala Ala Ala Cys Cys Cys Cys Ala Ala				
305		310		315 320
Gly Thr Gly Gly Gly Ala Ala Cys Gly Cys Ala Cys Thr Ala Ala Cys				
	325		330	335
Thr Thr Gly Ala Cys Cys Thr Ala Cys Ala Gly Gly Ala Thr Thr Cys				
	340		345	350
Gly Ala Ala Ala Cys Thr Ala Thr Ala Cys Cys Cys Cys Ala Cys Ala				
	355		360	365
Gly Cys Thr Gly Thr Cys Ala Gly Ala Gly Gly Cys Thr Gly Ala Gly				
	370		375	380
Gly Thr Ala Gly Ala Ala Ala Gly Ala Gly Cys Thr Ala Thr Cys Ala				
385		390		395 400
Ala Gly Gly Ala Thr Gly Cys Cys Thr Thr Thr Gly Ala Ala Cys Thr				
	405		410	415
Cys Thr Gly Gly Ala Gly Thr Gly Thr Thr Gly Cys Ala Thr Cys Ala				
	420		425	430
Cys Cys Thr Cys Thr Cys Ala Thr Cys Thr Thr Cys Ala Cys Cys Ala				
	435		440	445
Gly Gly Ala Thr Cys Thr Cys Ala Cys Ala Gly Gly Gly Ala Gly Ala				
	450		455	460
Gly Gly Cys Ala Gly Ala Thr Ala Thr Cys Ala Ala Cys Ala Thr Thr				
465		470		475 480
Gly Cys Thr Thr Thr Thr Thr Ala Cys Cys Ala Ala Ala Gly Ala Gly				
	485		490	495
Ala Thr Cys Ala Cys Gly Gly Thr Gly Ala Cys Ala Ala Thr Thr Cys				
	500		505	510
Thr Cys Cys Ala Thr Thr Thr Gly Ala Thr Gly Gly Ala Cys Cys Cys				
	515		520	525
Ala Ala Thr Gly Gly Ala Ala Thr Cys Cys Thr Thr Gly Cys Thr Cys				
	530		535	540
Ala Thr Gly Cys Cys Thr Thr Thr Cys Ala Gly Cys Cys Ala Gly Gly				

1060	1065	1070
Thr Gly Cys Ala Ala Gly Gly Thr Thr Ala Thr Cys Cys Cys Ala Ala 1075	1080	1085
Gly Gly Ala Thr Ala Thr Ala Thr Cys Ala Ala Ala Cys Thr Ala Thr 1090	1095	1100
Gly Gly Cys Thr Thr Cys Cys Cys Cys Ala Gly Cys Ala Gly Cys Gly 1105	1110	1115 1120
Thr Cys Cys Ala Ala Gly Cys Ala Ala Thr Thr Gly Ala Cys Gly Cys 1125	1130	1135
Ala Gly Cys Thr Gly Thr Thr Thr Thr Cys Thr Ala Cys Ala Gly Ala 1140	1145	1150
Ala Gly Thr Ala Ala Ala Ala Cys Ala Thr Ala Cys Thr Thr Cys Thr 1155	1160	1165
Thr Thr Gly Thr Ala Ala Ala Thr Gly Ala Cys Cys Ala Ala Thr Thr 1170	1175	1180
Cys Thr Gly Gly Ala Gly Ala Thr Ala Thr Gly Ala Thr Ala Ala Cys 1185	1190	1195 1200
Cys Ala Ala Ala Gly Ala Cys Ala Ala Thr Thr Cys Ala Thr Gly Gly 1205	1210	1215
Ala Gly Cys Cys Ala Gly Gly Thr Thr Ala Thr Cys Cys Cys Ala Ala 1220	1225	1230
Ala Ala Gly Cys Ala Thr Ala Thr Cys Ala Gly Gly Thr Gly Cys Cys 1235	1240	1245
Thr Thr Thr Cys Cys Ala Gly Gly Ala Ala Thr Ala Gly Ala Gly Ala 1250	1255	1260
Gly Thr Ala Ala Ala Gly Thr Thr Gly Ala Thr Gly Cys Ala Gly Thr 1265	1270	1275 1280
Thr Thr Thr Cys Cys Ala Gly Cys Ala Ala Gly Ala Ala Cys Ala Thr 1285	1290	1295
Thr Thr Cys Thr Thr Cys Cys Ala Thr Gly Thr Cys Thr Thr Cys Ala 1300	1305	1310
Gly Thr Gly Gly Ala Cys Cys Ala Ala Gly Ala Thr Ala Thr Thr Ala		

1315	1320	1325
Cys Gly Cys Ala Thr Thr Thr Gly Ala Thr Cys Thr Thr Ala Thr Thr		
1330	1335	1340
Gly Cys Thr Cys Ala Gly Ala Gly Ala Gly Thr Thr Ala Cys Cys Ala		
1345	1350	1355
Gly Ala Gly Thr Thr Gly Cys Ala Ala Gly Ala Gly Gly Cys Ala Ala		
	1365	1370
		1375
Thr Ala Ala Ala Thr Gly Gly Cys Thr Thr Ala Ala Cys Thr Gly Thr		
1380	1385	1390
Ala Gly Ala Thr Ala Thr Gly Gly Cys		
1395	1400	

<210> 178
 <211> 471
 <212> PRT
 <213> Homo sapiens

<400> 178
Phe Pro Leu Val Arg Met Thr Glu Asn Glu Glu Asn Met Gln Leu Ala
1 5 10 15
Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Asn His
20 25 30
Leu Val Gln Ser Lys Asn Arg Ser Leu Ile Asp Asp Lys Ile Arg Glu
35 40 45
Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser Asn
50 55 60
Thr Leu Glu Ile Met Lys Thr Pro Arg Cys Gly Val Pro Asp Val Gly
65 70 75 80
Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Asn Leu Thr Tyr
85 90 95
Arg Ile Ile Asn Tyr Thr Pro Asp Met Ala Arg Ala Ala Val Asp Glu
100 105 110
Ala Ile Gln Glu Gly Leu Glu Val Trp Ser Lys Val Thr Pro Leu Lys
115 120 125

Phe Thr Lys Ile Ser Lys Gly Ile Ala Asp Ile Met Ile Ala Phe Arg
130 135 140

Thr Arg Val His Gly Arg Cys Pro Arg Tyr Phe Asp Gly Pro Leu Gly
145 150 155 160

Val Leu Gly His Ala Phe Pro Pro Gly Pro Gly Leu Gly Gly Asp Thr
165 170 175

His Phe Asp Glu Asp Glu Asn Trp Thr Lys Asp Gly Ala Gly Phe Asn
180 185 190

Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ala Leu Gly Leu Ser
195 200 205

His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Val Ser Leu
210 215 220

Asp Pro Arg Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asn Gly Ile Gln
225 230 235 240

Ser Ile Tyr Gly Gly Leu Pro Lys Val Pro Ala Lys Pro Lys Glu Pro
245 250 255

Thr Ile Pro His Ala Cys Asp Pro Asp Leu Thr Phe Asp Ala Ile Thr
260 265 270

Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp Arg
275 280 285

Ile Tyr Tyr Asp Ile Thr Asp Val Glu Phe Glu Leu Ile Ala Ser Phe
290 295 300

Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Asn Pro Arg
305 310 315 320

Asp Lys Ile Leu Val Phe Lys Asp Glu Asn Phe Trp Met Ile Arg Gly
325 330 335

Tyr Ala Val Leu Pro Asp Tyr Pro Lys Ser Ile His Thr Leu Gly Phe
340 345 350

Pro Gly Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp Lys Thr Thr
355 360 365

Arg Lys Thr Tyr Phe Phe Val Gly Ile Trp Cys Trp Arg Phe Asp Glu
370 375 380

Met Thr Gln Thr Met Asp Lys Gly Phe Pro Gln Arg Val Val Lys His
 385 390 395 400

Phe Pro Gly Ile Ser Ile Arg Val Asp Ala Ala Phe Gln Tyr Lys Gly
 405 410 415

Phe Phe Phe Phe Ser Arg Gly Ser Lys Gln Phe Glu Tyr Asn Ile Lys
 420 425 430

Thr Lys Asn Ile Thr Arg Ile Met Arg Thr Asn Thr Trp Phe Gln Cys
 435 440 445

Lys Glu Pro Lys Asn Ser Ser Phe Gly Phe Asp Ile Asn Lys Glu Lys
 450 455 460

Ala His Ser Gly Gly Ile Lys
 465 470

<210> 179

<211> 18

<212> PRT

<213> Homo sapiens

<400> 179

Ile Leu Tyr His Lys Ser Leu Ser Leu Phe Ile Phe Gly Ile Val His
 1 5 10 15

Leu Leu

<210> 180

<211> 7

<212> PRT

<213> Homo sapiens

<400> 180

Lys Asn Thr Ser Ile Tyr Gln
 1 5

<210> 181

<211> 2467

<212> DNA

<213> Mus sp.

<400> 181

Glu	Met	Gln	Ala	Phe	Phe	Gly	Leu	Thr	Val	Thr	Gly	Lys	Leu	Asp	Ser	65	70	75	80
Asp	Thr	Leu	Ala	Ile	Met	Lys	Val	Pro	Arg	Cys	Gly	Val	Pro	Asp	Val	85	90	95	
Gly	Gln	Tyr	Gly	Tyr	Thr	Leu	Pro	Gly	Trp	Arg	Lys	Tyr	Ser	Leu	Thr	100	105	110	
Tyr	Arg	Ile	Met	Asn	Tyr	Thr	Pro	Asp	Met	Thr	Pro	Ala	Asp	Val	Asp	115	120	125	
Glu	Ala	Ile	Gln	Lys	Ala	Leu	Gln	Val	Trp	Ser	Lys	Val	Thr	Pro	Leu	130	135	140	
Thr	Phe	Thr	Arg	Ile	Ser	Lys	Gly	Val	Ala	Asp	Ile	Met	Ile	Ala	Phe	145	150	155	160
Arg	Thr	Gly	Val	His	Gly	Trp	Cys	Pro	Arg	His	Phe	Asp	Gly	Pro	Leu	165	170	175	
Gly	Val	Leu	Gly	His	Ala	Phe	Pro	Pro	Gly	Leu	Gly	Leu	Gly	Gly	Asp	180	185	190	
Thr	His	Phe	Asp	Glu	Asp	Glu	Thr	Trp	Ile	Ala	Lys	Asp	Gly	Glu	Gly	195	200	205	
Phe	Asn	Leu	Phe	Leu	Val	Ala	Ala	His	Glu	Phe	Gly	His	Ser	Leu	Gly	210	215	220	
Leu	Ser	His	Ser	Asn	Asp	Gln	Thr	Ala	Leu	Met	Phe	Pro	Asn	Tyr	Ile	225	230	235	240
Ser	Leu	Asp	Pro	Ser	Lys	Tyr	Pro	Leu	Ser	Gln	Asp	Asp	Ile	Asp	Gly	245	250	255	
Ile	Gln	Ser	Ile	Tyr	Gly	Ser	Pro	Pro	Lys	Val	Thr	Thr	Lys	Pro	Ser	260	265	270	
Gly	Asn	Ser	Glu	Pro	His	Ala	Cys	Asp	Pro	Thr	Leu	Thr	Phe	Asp	Ala	275	280	285	
Ile	Thr	Thr	Phe	Arg	Arg	Glu	Val	Met	Phe	Phe	Lys	Gly	Arg	His	Leu	290	295	300	
Trp	Arg	Val	Tyr	Ser	Asp	Ile	Ala	Gly	Ala	Glu	Phe	Glu	Phe	Ile	Asp	305	310	315	320

Ser Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Ser
325 330 335

Pro Arg Asp Glu Leu Leu Val Phe Lys Asp Glu Asn Phe Trp Val Ile
340 345 350

Arg Gly Tyr Ser Val Leu Pro Gly Tyr Pro Lys Ser Ile His Thr Leu
355 360 365

Gly Phe Pro Arg Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp His
370 375 380

Asp Thr Arg Lys Thr Phe Phe Phe Val Gly Ile Trp Cys Trp Arg Tyr
385 390 395 400

Asp Glu Met Ala Gln Ala Met Asp Arg Gly Phe Pro Gln Arg Ile Ile
405 410 415

Lys Cys Phe Pro Gly Ile Arg Leu Arg Val Asp Ala Val Phe Gln His
420 425 430

Asn Gly Phe Leu Tyr Phe Phe His Gly Ser Arg Gln Phe Glu Tyr Asp
435 440 445

Met Lys Ala Lys Asn Ile Thr Gln Val Ile Lys Thr Asn Ser Trp Phe
450 455 460

Leu Cys Asn Glu Pro Leu Asn Ala Ser Phe Asn Val Ser Val Lys Gly
465 470 475 480

Lys Ala Asn Ser Ile Gly Thr Val Ile Leu His His Lys Arg Leu Ser
485 490 495

Leu Leu Thr Phe Ser Ile Val His Val Leu Thr Lys Thr Tyr Asn
500 505 510

<210> 184

<211> 17

<212> PRT

<213> Mus sp.

<400> 184

Met Lys Cys Leu Leu Ser Leu Met Val Asn Phe Ile Thr Leu Ser Ala
1 5 10 15

Ala

<210> 185
 <211> 494
 <212> PRT
 <213> Mus sp.

<400> 185

Phe Pro Pro Asp Arg Lys Asp Lys Asn Glu Glu Asn Asn Gln Leu Ala
 1 5 10 15

Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Ser His
 20 25 30

Phe Val Gln Ser Lys Asn Arg Ser Leu Phe Asp Gly Lys Leu Arg Glu
 35 40 45

Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser Asp
 50 55 60

Thr Leu Ala Ile Met Lys Val Pro Arg Cys Gly Val Pro Asp Val Gly
 65 70 75 80

Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Ser Leu Thr Tyr
 85 90 95

Arg Ile Met Asn Tyr Thr Pro Asp Met Thr Pro Ala Asp Val Asp Glu
 100 105 110

Ala Ile Gln Lys Ala Leu Gln Val Trp Ser Lys Val Thr Pro Leu Thr
 115 120 125

Phe Thr Arg Ile Ser Lys Gly Val Ala Asp Ile Met Ile Ala Phe Arg
 130 135 140

Thr Gly Val His Gly Trp Cys Pro Arg His Phe Asp Gly Pro Leu Gly
 145 150 155 160

Val Leu Gly His Ala Phe Pro Pro Gly Leu Gly Leu Gly Gly Asp Thr
 165 170 175

His Phe Asp Glu Asp Glu Thr Trp Ile Ala Lys Asp Gly Glu Gly Phe
 180 185 190

Asn Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ser Leu Gly Leu
 195 200 205

Ser His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Ile Ser

00765260
 0210
 0211
 0212
 0213

210	215	220
Leu Asp Pro Ser Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asp Gly Ile		
225	230	235 240
Gln Ser Ile Tyr Gly Ser Pro Pro Lys Val Thr Thr Lys Pro Ser Gly		
	245	250 255
Asn Ser Glu Pro His Ala Cys Asp Pro Thr Leu Thr Phe Asp Ala Ile		
	260	265 270
Thr Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp		
	275	280 285
Arg Val Tyr Ser Asp Ile Ala Gly Ala Glu Phe Glu Phe Ile Asp Ser		
	290	295 300
Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Ser Pro		
305	310	315 320
Arg Asp Glu Leu Leu Val Phe Lys Asp Glu Asn Phe Trp Val Ile Arg		
	325	330 335
Gly Tyr Ser Val Leu Pro Gly Tyr Pro Lys Ser Ile His Thr Leu Gly		
	340	345 350
Phe Pro Arg Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp His Asp		
	355	360 365
Thr Arg Lys Thr Phe Phe Phe Val Gly Ile Trp Cys Trp Arg Tyr Asp		
	370	375 380
Glu Met Ala Gln Ala Met Asp Arg Gly Phe Pro Gln Arg Ile Ile Lys		
385	390	395 400
Cys Phe Pro Gly Ile Arg Leu Arg Val Asp Ala Val Phe Gln His Asn		
	405	410 415
Gly Phe Leu Tyr Phe Phe His Gly Ser Arg Gln Phe Glu Tyr Asp Met		
	420	425 430
Lys Ala Lys Asn Ile Thr Gln Val Ile Lys Thr Asn Ser Trp Phe Leu		
	435	440 445
Cys Asn Glu Pro Leu Asn Ala Ser Phe Asn Val Ser Val Lys Gly Lys		
	450	455 460
Ala Asn Ser Ile Gly Thr Val Ile Leu His His Lys Arg Leu Ser Leu		

465

470

475

480

Leu Thr Phe Ser Ile Val His Val Leu Thr Lys Thr Tyr Asn

485

490

<210> 186

<400> 186

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<210> 187

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<210> 188

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<210> 189

<400> 189

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<210> 190

<400> 190

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<210> 191

<211> 2628

<212> DNA

<213> Homo sapiens

<400> 191

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gtggcgagcgt cttccagccc ccaccatgcc gtggcccctg ctgctgctgc tggccgtgag 120
tggggcccag acaaccgggc catgcttccc cgggtgccaa tgcgaggtgg agaccttcgg 180
ccttttcgac agcttcagcc tgactcgggt ggattgtagc ggcctgggccc cccacatcat 240
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gcttgacctc agccacaatg gcctgacagc cctgccagcc gagagcttca ccagctcacc 480
cctgagcgac gtgaacctta gccacaacca gctccgggag gtctcagtggt ctgccttcac 540
gacgcacagt cagggccggg cactacacgt ggacctctcc cacaacctca ttcaccgcct 600
cgtgccccac cccacgaggg ccggcctgcc tgcgcccacc attcagagcc tgaacctggc 660

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<212> DNA

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Pro His Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp
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Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly
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Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu
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Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser
100 105 110
Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe
115 120 125
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Glu Val Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu
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 50 55 60

Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu
 65 70 75 80

Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser
 85 90 95

Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe
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Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg
 115 120 125

Glu Val Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu
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His Val Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro
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Thr Arg Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala
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Trp Asn Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg
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Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala
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Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly Ala
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Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu Leu His Leu Pro Ala
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Leu Gln Ser Val Ser Val Gly Gln Asp Val Arg Cys Arg Arg Leu Val
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 <211> 200
 <212> PRT
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 35 40 45

Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly
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Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu
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Leu Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly
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Ala Glu Val Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu Asp Leu Ser
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<210> 201

<211> 3770

<212> DNA

<213> Homo sapiens

<400> 201

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<211> 778

<212> PRT

<213> Homo sapiens

<400> 203

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Ala Asn Lys Met Val Asn His Ser Leu His Pro Thr Glu Pro Val Lys
 35 40 45

Val Thr Leu Pro Asp Ala Phe Leu Pro Ala Gln Val Cys Ser Ala Arg
 50 55 60

Ile Gln Glu Asn Gly Ser Leu Ile Thr Ile Leu Val Ile Ala Gly Val
 65 70 75 80

Phe Trp Ile His Arg Leu Ile Lys Phe Ile Tyr Asn Ile Cys Cys Tyr
 85 90 95

Trp Glu Ile His Ser Phe Tyr Leu His Ala Leu Arg Ile Pro Met Ser
 100 105 110

Ala Leu Pro Tyr Cys Thr Trp Gln Glu Val Gln Ala Arg Ile Val Gln
 115 120 125

Thr Gln Lys Glu His Gln Ile Cys Ile His Lys Arg Glu Leu Thr Glu
 130 135 140

Leu Asp Ile Tyr His Arg Ile Leu Arg Phe Gln Asn Tyr Met Val Ala
 145 150 155 160

Leu Val Asn Lys Ser Leu Leu Pro Leu Arg Phe Arg Leu Pro Gly Leu
 165 170 175

Gly Glu Ala Val Phe Phe Thr Arg Gly Leu Lys Tyr Asn Phe Glu Leu
 180 185 190

00750130-04201

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Ala	Ser	Val	Tyr	Gln	Gln	Ala	Glu	Asp	Gly	Lys	Thr	Glu	Leu	Ser	Leu	485	490	495	
Met	His	Phe	Ala	Ile	Thr	Asn	Pro	Gly	Trp	Gln	Pro	Pro	Arg	Glu	Ser	500	505	510	
Thr	Ala	Phe	Leu	Gly	Phe	Leu	Lys	Glu	Gln	Val	Gln	Arg	Asp	Gly	Ala	515	520	525	
Ala	Ala	Ser	Leu	Ala	Gln	Gly	Gly	Leu	Leu	Pro	Glu	Asn	Ala	Leu	Phe	530	535	540	
Thr	Ser	Ile	Gln	Ser	Leu	Gln	Ser	Glu	Ser	Glu	Pro	Leu	Ser	Leu	Ile	545	550	555	560
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Ser	Ser	Val	Trp	Glu	Gly	Gln	Leu	Gln	Ser	Leu	Val	Leu	Ser	Glu	Tyr	625	630	635	640
Ala	Ser	Thr	Glu	Met	Ser	Leu	His	Ala	Leu	Tyr	Met	His	Gln	Leu	His	645	650	655	
Lys	Gln	Gln	Ala	Gln	Ala	Glu	Pro	Glu	Arg	His	Val	Trp	His	Arg	Arg	660	665	670	
Glu	Ser	Asp	Glu	Ser	Gly	Glu	Ser	Ala	Pro	Asp	Glu	Gly	Gly	Glu	Gly	675	680	685	
Ala	Arg	Ala	Pro	Gln	Ser	Ile	Pro	Arg	Ser	Ala	Ser	Tyr	Pro	Cys	Ala	690	695	700	

0035030-0100

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Gln Arg Arg Tyr Gly Gly Ile Thr Asp Pro Gly Thr Val Pro Arg Val
725 730 735

Pro Ser His Phe Ser Arg Leu Pro Leu Gly Gly Trp Ala Glu Asp Gly
740 745 750

Gln Ser Ala Ser Arg His Pro Glu Pro Val Pro Glu Glu Gly Ser Glu
755 760 765

Asp Glu Leu Pro Pro Gln Val His Lys Val
770 775

<210> 204

<211> 25

<212> PRT

<213> Homo sapiens

<400> 204

Met Leu Ile Gly Glu Ile Phe Glu Leu Met Gln Phe Leu Phe Val Val
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Ala Phe Thr Thr Phe Leu Val Ser Cys
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<210> 205

<211> 753

<212> PRT

<213> Homo sapiens

<400> 205

Val Asp Tyr Asp Ile Leu Phe Ala Asn Lys Met Val Asn His Ser Leu
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His Pro Thr Glu Pro Val Lys Val Thr Leu Pro Asp Ala Phe Leu Pro
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Ala Gln Val Cys Ser Ala Arg Ile Gln Glu Asn Gly Ser Leu Ile Thr
35 40 45

Ile Leu Val Ile Ala Gly Val Phe Trp Ile His Arg Leu Ile Lys Phe
50 55 60

Ile Tyr Asn Ile Cys Cys Tyr Trp Glu Ile His Ser Phe Tyr Leu His

00160130-041201

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340

345

350

His Gly Gly Phe Gln Arg Arg Tyr Gly Gly Ile Thr Asp Pro Gly Thr
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Val Pro Arg Val Pro Ser His Phe Ser Arg Leu Pro Leu Gly Gly Trp
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Ala Glu Asp Gly Gln Ser Ala Ser Arg His Pro Glu Pro Val Pro Glu
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Glu Gly Ser Glu Asp Glu Leu Pro Pro Gln Val His Lys Val
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<211> 2448

<212> DNA

<213> Homo sapiens

<400> 215

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<211> 816

<212> PRT

<213> Homo sapiens

<400> 216

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Arg Val Tyr Asn Leu His Gln Lys Asn Gly Phe Thr Cys Met Leu Ile
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Gly Glu Ile Phe Glu Leu Met Gln Phe Leu Phe Val Val Ala Phe Thr
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Thr Phe Leu Val Ser Cys Val Asp Tyr Asp Ile Leu Phe Ala Asn Lys
85 90 95
Met Val Asn His Ser Leu His Pro Thr Glu Pro Val Lys Val Thr Leu
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Pro Asp Ala Phe Leu Pro Ala Gln Val Cys Ser Ala Arg Ile Gln Glu
115 120 125
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130 135 140

His Arg Leu Ile Lys Phe Ile Tyr Asn Ile Cys Cys Tyr Trp Glu Ile
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 His Ser Phe Tyr Leu His Ala Leu Arg Ile Pro Met Ser Ala Leu Pro
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 Tyr Cys Thr Trp Gln Glu Val Gln Ala Arg Ile Val Gln Thr Gln Lys
 180 185 190
 Glu His Gln Ile Cys Ile His Lys Arg Glu Leu Thr Glu Leu Asp Ile
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 Tyr His Arg Ile Leu Arg Phe Gln Asn Tyr Met Val Ala Leu Val Asn
 210 215 220
 Lys Ser Leu Leu Pro Leu Arg Phe Arg Leu Pro Gly Leu Gly Glu Ala
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 Val Phe Phe Thr Arg Gly Leu Lys Tyr Asn Phe Glu Leu Ile Leu Phe
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 Trp Gly Pro Gly Ser Leu Phe Leu Asn Glu Trp Ser Leu Lys Ala Glu
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 Tyr Lys Arg Gly Gly Gln Arg Leu Glu Leu Ala Gln Arg Leu Ser Asn
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 Lys Arg Glu Pro Gly Ala Leu Gly Ala Arg Cys Trp Ser Leu Tyr Gly
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 355 360 365
 Leu Ser Pro Leu Leu Thr Leu Leu Ala Lys Asn Gly Ala Phe Phe Ala
 370 375 380
 Gly Ser Ile Leu Ala Val Leu Ile Ala Leu Thr Ile Tyr Asp Glu Asp
 385 390 395 400

Arg Thr Ala Ser Ser Gly Ser Ser Val Trp Glu Gly Gln Leu Gln Ser
660 665 670

Leu Val Leu Ser Glu Tyr Ala Ser Thr Glu Met Ser Leu His Ala Leu
675 680 685

Tyr Met His Gln Leu His Lys Gln Gln Ala Gln Ala Glu Pro Glu Arg
690 695 700

His Val Trp His Arg Arg Glu Ser Asp Glu Ser Gly Glu Ser Ala Pro
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Asp Glu Gly Gly Glu Gly Ala Arg Ala Pro Gln Ser Ile Pro Arg Ser
725 730 735

Ala Ser Tyr Pro Cys Ala Ala Pro Arg Pro Gly Ala Pro Glu Thr Thr
740 745 750

Ala Leu His Gly Gly Phe Gln Arg Arg Tyr Gly Gly Ile Thr Asp Pro
755 760 765

Gly Thr Val Pro Arg Val Pro Ser His Phe Ser Arg Leu Pro Leu Gly
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<400> 221

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<212> DNA
<213> Homo sapiens

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<210> 223
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<212> PRT
<213> Homo sapiens

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<400> 223
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Ser Phe Leu Phe Ser Ala Leu Tyr Ala Ala Phe Ile Phe Gly Gly Arg
35 40 45
His Leu Met Asn Lys Arg Ala Lys Phe Glu Leu Arg Lys Pro Leu Val
50 55 60
Leu Trp Ser Leu Thr Leu Ala Val Phe Ser Ile Phe Gly Ala Leu Arg
65 70 75 80
Thr Gly Ala Tyr Met Val Tyr Ile Leu Met Thr Lys Gly Leu Lys Gln
85 90 95
Ser Val Cys Asp Gln Gly Phe Tyr Asn Gly Pro Val Ser Lys Phe Trp
100 105 110
Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp Thr Ile
115 120 125
Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His Trp Tyr His
130 135 140
His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp Met Val
145 150 155 160
Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val His Ala Val
165 170 175
Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg Val Ser Arg
180 185 190
Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln Met Leu Met
195 200 205
Gly Cys Val Val Asn Tyr Leu Val Phe Cys Trp Met Gln His Asp Gln
210 215 220
Cys His Ser His Phe Gln Asn Ile Phe Trp Ser Ser Leu Met Tyr Leu
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Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe Glu Ala Tyr Ile Gly
245 250 255
Lys Met Arg Lys Thr Thr Lys Ala Glu
260 265

<210> 224
 <211> 46
 <212> PRT
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<400> 224
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<210> 225
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 225
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 35 40 45
 Lys Gln Ser Val Cys Asp Gln Gly Phe Tyr Asn Gly Pro Val Ser Lys
 50 55 60
 Phe Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp
 65 70 75 80
 Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His Trp
 85 90 95
 Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp
 100 105 110
 Met Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val His
 115 120 125
 Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg Val

130	135	140
Ser Arg Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln Met		
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Leu Met Gly Cys Val Val Asn Tyr Leu Val Phe Cys Trp Met Gln His		
	165	170 175
Asp Gln Cys His Ser His Phe Gln Asn Ile Phe Trp Ser Ser Leu Met		
	180	185 190
Tyr Leu Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe Glu Ala Tyr		
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Ile Gly Lys Met Arg Lys Thr Thr Lys Ala Glu		
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<210> 226

<211> 16

<212> PRT

<213> Homo sapiens

<400> 226

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<210> 227

<211> 17

<212> PRT

<213> Homo sapiens

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Leu

<210> 228

<211> 57

<212> PRT

<213> Homo sapiens

<400> 228

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<210> 229

<211> 17

<212> PRT

<213> Homo sapiens

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<210> 230

<211> 11

<212> PRT

<213> Homo sapiens

<400> 230

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<210> 231

<211> 19

<212> PRT

<213> Homo sapiens

<400> 231

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Tyr Ala Leu

<210> 232

<211> 10

<212> PRT

<213> Homo sapiens

<400> 232

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<210> 233

<211> 24

<212> PRT

<213> Homo sapiens

<400> 233

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<210> 234

<211> 14

<212> PRT

<213> Homo sapiens

<400> 234

Cys Trp Met Gln His Asp Gln Cys His Ser His Phe Gln Asn
1 5 10

<210> 235

<211> 20

<212> PRT

<213> Homo sapiens

<400> 235

Ile Phe Trp Ser Ser Leu Met Tyr Leu Ser Tyr Leu Val Leu Phe Cys
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His Phe Phe Phe
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<210> 236

<211> 14

<212> PRT
<213> Homo sapiens

<400> 236
Glu Ala Tyr Ile Gly Lys Met Arg Lys Thr Thr Lys Ala Glu
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<210> 237
<400> 237
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<210> 238
<211> 813
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<213> Mus sp.

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Ser Phe Leu Phe Ser Ala Leu Tyr Ala Ala Phe Ile Phe Gly Gly Arg

<210> 241
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 <212> DNA
 <213> Mus sp.

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 <211> 522
 <212> DNA
 <213> Mus sp.

<400> 242

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<210> 243

<211> 174

<212> PRT

<213> Mus sp.

<400> 243

Leu Lys Gln Ser Val Cys Asp Gln Ser Phe Tyr Asn Gly Pro Val Ser
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Lys Phe Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly
20 25 30
Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His
35 40 45
Trp Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys
50 55 60
Asp Met Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val
65 70 75 80
His Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg
85 90 95
Val Ser Arg Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln
100 105 110
Met Leu Met Gly Cys Val Ile Asn Tyr Leu Val Phe Asn Trp Met Gln
115 120 125
His Asp Asn Asp Gln Cys Tyr Ser His Phe Gln Asn Ile Phe Trp Ser
130 135 140
Ser Leu Met Tyr Leu Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe
145 150 155 160

Glu Ala Tyr Ile Gly Lys Val Lys Lys Ala Thr Lys Ala Glu
 165 170

<210> 244
 <211> 49
 <212> PRT
 <213> Mus sp.

<400> 244
 Leu Lys Gln Ser Val Cys Asp Gln Ser Phe Tyr Asn Gly Pro Val Ser
 1 5 10 15

Lys Phe Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly
 20 25 30

Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His
 35 40 45

Trp

<210> 245
 <211> 17
 <212> PRT
 <213> Mus sp.

<400> 245
 Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp
 1 5 10 15

Met

<210> 246
 <211> 11
 <212> PRT
 <213> Mus sp.

<400> 246
 Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn
 1 5 10

<210> 247

<211> 19
 <212> PRT
 <213> Mus sp.

<400> 247
 Tyr Gly Val His Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala
 1 5 10 15

Gly Phe Arg

<210> 248
 <211> 10
 <212> PRT
 <213> Mus sp.

<400> 248
 Val Ser Arg Lys Phe Ala Met Phe Ile Thr
 1 5 10

<210> 249
 <211> 24
 <212> PRT
 <213> Mus sp.

<400> 249
 Leu Ser Gln Ile Thr Gln Met Leu Met Gly Cys Val Ile Asn Tyr Leu
 1 5 10 15

Val Phe Asn Trp Met Gln His Asp
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<210> 250
 <211> 16
 <212> PRT
 <213> Mus sp.

<400> 250
 Asn Asp Gln Cys Tyr Ser His Phe Gln Asn Ile Phe Trp Ser Ser Leu
 1 5 10 15

<210> 251
 <211> 974
 <212> DNA

<213> Rattus sp.

<400> 251

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cgggctgcgg gtttccgggt ctcccgggaag tttgccatgt tcatcacgtt gtcccagatc 240
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aatgaccagt gctactccca ctttcagaac atcttctggg cctcactcat gtacctcagc 360
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ataatagaca aaaagaaaat ggcacaagga atcacatatg gtgcagctaa aacaaaaaaa 540
aacattatga gcagacgcta agcccaaggc agcttggggag tgaagattag gttgtaagtt 600
tatgatcctt tttgggtgag gactcactga gaacactgct gctgagggac ccccttcctt 660
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cccacgcgca tgcagacaca cccacctaca cactatctgc agatgaccag tgtcctatgc 900
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aaaaaaaaaa aaaa 974

<210> 252

<211> 432

<212> DNA

<213> Rattus sp.

<400> 252

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ggttgggttca tgactatgaa ctatggcgta cacgccgtca tgtactctta ctacgccttg 180
cgggctgcgg gtttccgggt ctcccgggaag tttgccatgt tcatcacgtt gtcccagatc 240
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aatgaccagt gctactccca ctttcagaac atcttctggg cctcactcat gtacctcagc 360
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acgaaggccg ag 432

<210> 253

<211> 144

<212> PRT

<213> Rattus sp.

<400> 253

Leu Gly Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe
1 5 10 15

Leu His Trp Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser

<400> 258
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<210> 259
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<210> 260
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ggccgagctg	ggggccccca	tggccatcct	ggacctcgct	gctccagagt	ttaataaagg	2820
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aaaaagggcg	gccgc					2895

<210> 272

<400> 272

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 ttcaacacag gcttcaccac actgctgggc tgtgccgtgg gccttgtgct cgtgctgctc 1200
 tacctgttcg cccaccctg ccgctgctgc cgccgtgcct gcccgctgcc gccgctggcc 1260
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<210> 273

<211> 455

<212> PRT

<213> Homo sapiens

<400> 273

Met Thr Trp Leu Val Leu Leu Gly Thr Leu Leu Cys Met Leu Arg Val
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Gly Leu Gly Thr Pro Asp Ser Glu Gly Phe Pro Pro Arg Ala Leu His
 20 25 30

Asn Cys Pro Tyr Lys Cys Ile Cys Ala Ala Asp Leu Leu Ser Cys Thr
 35 40 45

Gly Leu Gly Leu Gln Asp Val Pro Ala Glu Leu Pro Ala Ala Thr Ala
 50 55 60

Asp Leu Asp Leu Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp
 65 70 75 80

Leu Ala Pro Leu Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu
 85 90 95

Leu Asp Ala Leu Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg
 100 105 110

Leu Leu Asp Leu Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp
 115 120 125

Leu Asp Gly Leu Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg
 130 135 140

Leu Val His Leu Asp Glu His Ala Phe His Gly Leu Arg Ala Leu Ser
 145 150 155 160

His Leu Tyr Leu Gly Cys Asn Glu Leu Ala Ser Phe Ser Phe Asp His
 165 170 175

Leu His Gly Leu Ser Ala Thr His Leu Leu Thr Leu Asp Leu Ser Ser

435 440 445
 Gly Gln Ala Ser Thr Ser Thr
 450 455

 <210> 274
 <211> 20
 <212> PRT
 <213> Homo sapiens

 <400> 274
 Met Thr Trp Leu Val Leu Leu Gly Thr Leu Leu Cys Met Leu Arg Val
 1 5 10 15

 Gly Leu Gly Thr
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 <210> 275
 <211> 435
 <212> PRT
 <213> Homo sapiens

 <400> 275
 Pro Asp Ser Glu Gly Phe Pro Pro Arg Ala Leu His Asn Cys Pro Tyr
 1 5 10 15

 Lys Cys Ile Cys Ala Ala Asp Leu Leu Ser Cys Thr Gly Leu Gly Leu
 20 25 30

 Gln Asp Val Pro Ala Glu Leu Pro Ala Ala Thr Ala Asp Leu Asp Leu
 35 40 45

 Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp Leu Ala Pro Leu
 50 55 60

 Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu Leu Asp Ala Leu
 65 70 75 80

 Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg Leu Leu Asp Leu
 85 90 95

 Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp Leu Asp Gly Leu
 100 105 110

 Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg Leu Val His Leu
 115 120 125

Pro Pro Cys Arg Cys Cys Arg Arg Ala Cys Pro Leu Pro Pro Leu Ala
385 390 395 400

Pro Asn Thr Gln Pro Ala Pro Arg Ala Glu Pro His Lys Ser Ser Val
405 410 415

Leu Ser Thr Thr Pro Pro Asp Ala Pro Ser Pro Gln Gly Gln Ala Ser
420 425 430

Thr Ser Thr
435

<210> 276

<211> 363

<212> PRT

<213> Homo sapiens

<400> 276

Pro Asp Ser Glu Gly Phe Pro Pro Arg Ala Leu His Asn Cys Pro Tyr
1 5 10 15

Lys Cys Ile Cys Ala Ala Asp Leu Leu Ser Cys Thr Gly Leu Gly Leu
20 25 30

Gln Asp Val Pro Ala Glu Leu Pro Ala Ala Thr Ala Asp Leu Asp Leu
35 40 45

Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp Leu Ala Pro Leu
50 55 60

Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu Leu Asp Ala Leu
65 70 75 80

Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg Leu Leu Asp Leu
85 90 95

Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp Leu Asp Gly Leu
100 105 110

Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg Leu Val His Leu
115 120 125

Asp Glu His Ala Phe His Gly Leu Arg Ala Leu Ser His Leu Tyr Leu
130 135 140

Gly Cys Asn Glu Leu Ala Ser Phe Ser Phe Asp His Leu His Gly Leu

Gly Phe Thr Thr Leu Leu Gly Cys Ala Val Gly Leu Val Leu Val Leu
 1 5 10 15

Leu Tyr Leu Phe
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<210> 278
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 278
 Ala Pro Pro Cys Arg Cys Cys Arg Arg Ala Cys Pro Leu Pro Pro Leu
 1 5 10 15

Ala Pro Asn Thr Gln Pro Ala Pro Arg Ala Glu Pro His Lys Ser Ser
 20 25 30

Val Leu Ser Thr Thr Pro Pro Asp Ala Pro Ser Pro Gln Gly Gln Ala
 35 40 45

Ser Thr Ser Thr
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<210> 279
 <211> 1518
 <212> DNA
 <213> Homo sapiens

<400> 279
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 ctgttctctg ccgggctcat gcttggtacc ggctccatca acacgctctc ggcaaaatgg 120
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 cctcttcttt tctgcccc agcgctctgt gacatgacag ggaccagcct catgtatgtg 360
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 actggcctgt tctcggtggc cttcctgggc cggaggctgg tgctgagcca gtggctgggc 480
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 ccactgcggg cagttggcac tgagggcctc tttggctttg tgatcctctc cctgctgctg 720
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 agcgccacca cccgcatggt gttggacagc ttgcgcaccg ttgtcatctg ggcactgagc 960

Ile Ala Phe Phe Asn Phe Ala Gly Ile Ser Val Thr Lys Glu Leu Ser
 275 280 285

Ala Thr Thr Arg Met Val Leu Asp Ser Leu Arg Thr Val Val Ile Trp
 290 295 300

Ala Leu Ser Leu Ala Leu Gly Trp Glu Ala Phe His Ala Leu Gln Ile
 305 310 315 320

Leu Gly Phe Leu Ile Leu Leu Ile Gly Thr Ala Leu Tyr Asn Gly Leu
 325 330 335

His Arg Pro Leu Leu Gly Arg Leu Ser Arg Gly Arg Pro Leu Ala Glu
 340 345 350

Glu Ser Glu Gln Glu Arg Leu Leu Gly Gly Thr Arg Thr Pro Ile Asn
 355 360 365

Asp Ala Ser
 370

<210> 282

<211> 18

<212> PRT

<213> Homo sapiens

<400> 282

Met Ala Trp Thr Lys Tyr Gln Leu Phe Leu Ala Gly Leu Met Leu Val
 1 5 10 15

Thr Gly

<210> 283

<211> 353

<212> PRT

<213> Homo sapiens

<400> 283

Ser Ile Asn Thr Leu Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu
 1 5 10 15

Gly Cys Gly Gly Ser Lys Glu His Ser Phe Gln His Pro Phe Leu Gln
 20 25 30

Ala Val Gly Met Phe Leu Gly Glu Phe Ser Cys Leu Ala Ala Phe Tyr

290

295

300

Phe Leu Ile Leu Leu Ile Gly Thr Ala Leu Tyr Asn Gly Leu His Arg
 305 310 315 320

Pro Leu Leu Gly Arg Leu Ser Arg Gly Arg Pro Leu Ala Glu Glu Ser
 325 330 335

Glu Gln Glu Arg Leu Leu Gly Gly Thr Arg Thr Pro Ile Asn Asp Ala
 340 345 350

Ser

<210> 284

<211> 29

<212> PRT

<213> Homo sapiens

<400> 284

Ser Ile Asn Thr Leu Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu
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Gly Cys Gly Gly Ser Lys Glu His Ser Phe Gln His Pro
 20 25

<210> 285

<211> 9

<212> PRT

<213> Homo sapiens

<400> 285

Asn Met Thr Ser Ala Ser Ser Phe Gln
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<210> 286

<211> 14

<212> PRT

<213> Homo sapiens

<400> 286

Asp Leu Leu Ser Lys His Asp Ser Gln His Lys Leu Ser Glu
 1 5 10

<210> 287
<211> 27
<212> PRT
<213> Homo sapiens

<400> 287
Pro Ala Gly Ser Phe Ser Gly Asn Pro Arg Gly Thr Leu Glu Asp Ala
1 5 10 15

Leu Asp Ala Phe Cys Gln Val Gly Gln Gln Pro
20 25

<210> 288
<211> 7
<212> PRT
<213> Homo sapiens

<400> 288
Glu Ala Phe His Ala Leu Gln
1 5

<210> 289
<211> 21
<212> PRT
<213> Homo sapiens

<400> 289
Phe Leu Gln Ala Val Gly Met Phe Leu Gly Glu Phe Ser Cys Leu Ala
1 5 10 15

Ala Phe Tyr Leu Leu
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<210> 290
<211> 21
<212> PRT
<213> Homo sapiens

<400> 290
Leu Leu Phe Leu Pro Pro Ala Leu Cys Asp Met Thr Gly Thr Ser Leu
1 5 10 15

Met Tyr Val Ala Leu
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<210> 291
<211> 19
<212> PRT
<213> Homo sapiens

<400> 291
Met Leu Arg Gly Ala Val Ile Ile Phe Thr Gly Leu Phe Ser Val Ala
1 5 10 15

Phe Leu Gly

<210> 292
<211> 17
<212> PRT
<213> Homo sapiens

<400> 292
Trp Leu Gly Ile Leu Ala Thr Ile Ala Gly Leu Val Val Val Gly Leu
1 5 10 15

Ala

<210> 293
<211> 17
<212> PRT
<213> Homo sapiens

<400> 293
Val Ile Thr Gly Asp Leu Leu Ile Ile Met Ala Gln Ile Ile Val Ala
1 5 10 15

Ile

<210> 294
<211> 18
<212> PRT
<213> Homo sapiens

<400> 294
Gly Leu Phe Gly Phe Val Ile Leu Ser Leu Leu Leu Val Pro Met Tyr
1 5 10 15

Tyr Ile

<210> 295

<211> 23

<212> PRT

<213> Homo sapiens

<400> 295

Leu Ile Ala Val Ala Leu Leu Gly Asn Ile Ser Ser Ile Ala Phe Phe
1 5 10 15

Asn Phe Ala Gly Ile Ser Val
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<210> 296

<211> 20

<212> PRT

<213> Homo sapiens

<400> 296

Met Val Leu Asp Ser Leu Arg Thr Val Val Ile Trp Ala Leu Ser Leu
1 5 10 15

Ala Leu Gly Trp
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<210> 297

<211> 17

<212> PRT

<213> Homo sapiens

<400> 297

Ile Leu Gly Phe Leu Ile Leu Leu Ile Gly Thr Ala Leu Tyr Asn Gly
1 5 10 15

Leu

<210> 298

<211> 20

<212> PRT

<213> Homo sapiens

<400> 298

Arg Cys Arg Ala Ala Gly Gln Ser Asp Ser Ser Val Asp Pro Gln Gln
1 5 10 15

Pro Phe Asn Pro
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<210> 299

<211> 7

<212> PRT

<213> Homo sapiens

<400> 299

Arg Arg Leu Val Leu Ser Gln
1 5

<210> 300

<211> 24

<212> PRT

<213> Homo sapiens

<400> 300

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11 e a e 51 l y h a 10y y i s a 15i

<210> 301

<211> 9

<212> PRT

<213> Homo sapiens

<400> 301

Thr Lys Glu Leu Ser Ala Thr Thr Arg
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<210> 302

<211> 35

<212> PRT

<213> Homo sapiens

<400> 302

His Arg Pro Leu Leu Gly Arg Leu Ser Arg Gly Arg Pro Leu Ala Glu
1 5 10 15

Glu Ser Glu Gln Glu Arg Leu Leu Gly Gly Thr Arg Thr Pro Ile Asn
 20 25 30

Asp Ala Ser
 35

<210> 303
 <211> 2811
 <212> DNA
 <213> Homo sapiens

<400> 303
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<210> 304

<211> 729

<212> DNA

<213> Homo sapiens

<400> 304

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<210> 305

<211> 243

<212> PRT

<213> Homo sapiens

<400> 305

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  1             5             10             15

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Leu Gly Ile Gly Ala Glu Val Trp Trp Asn Leu Val Pro Arg Lys Thr
      20             25             30

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Val Ser Ser Gly Glu Leu Ala Thr Val Val Arg Arg Phe Ser Gln Thr

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35	40	45
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65	70	75 80
Leu Glu Leu Gln Gly Ala Ile Ser Trp Glu Ala Pro Val Glu Lys Lys		
	85 90	95
Thr Glu Cys Ile Gln Lys Gly Lys Asn Asn Gln Thr Glu Cys Phe Asn		
	100 105	110
Phe Ile Arg Phe Leu Gln Pro Tyr Asn Ala Ser His Leu Tyr Val Cys		
	115 120	125
Gly Thr Tyr Ala Phe Gln Pro Lys Cys Thr Tyr Val Val Ser Ala Ala		
	130 135	140
Leu Leu Pro Arg Cys Pro Gln Pro Pro Ala Leu Leu Thr Leu Leu Trp		
	145 150	155 160
Thr Arg Gly Cys Gly Pro Gln Ser Pro Ala Leu Lys His Leu Leu Ile		
	165 170	175
Thr Ser Leu Ser Val Leu Arg Thr Cys Ser Pro Ser Leu Trp Ser Met		
	180 185	190
Glu Ser Leu Lys Met Gly Arg Ala Ser Val Pro Met Thr Gln Leu Arg		
	195 200	205
Ala Met Leu Ala Phe Leu Trp Met Val Ser Cys Thr Arg Pro His Ser		
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Thr Thr Ser Trp Ala Arg Asn Pro Leu Ser Cys Val Thr Trp Gly Pro		
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Thr Thr Pro		

<210> 306
 <211> 20
 <212> PRT
 <213> Homo sapiens
 <400> 306

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Leu Gly Ile Gly
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<210> 307

<211> 223

<212> PRT

<213> Homo sapiens

<400> 307

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Glu Leu Ala Thr Val Val Arg Arg Phe Ser Gln Thr Gly Ile Gln Asp
 20 25 30

Phe Leu Thr Leu Thr Leu Thr Glu Pro Thr Gly Leu Leu Tyr Val Gly
 35 40 45

Ala Arg Glu Ala Leu Phe Ala Phe Ser Met Glu Ala Leu Glu Leu Gln
 50 55 60

Gly Ala Ile Ser Trp Glu Ala Pro Val Glu Lys Lys Thr Glu Cys Ile
 65 70 75 80

Gln Lys Gly Lys Asn Asn Gln Thr Glu Cys Phe Asn Phe Ile Arg Phe
 85 90 95

Leu Gln Pro Tyr Asn Ala Ser His Leu Tyr Val Cys Gly Thr Tyr Ala
 100 105 110

Phe Gln Pro Lys Cys Thr Tyr Val Val Ser Ala Ala Leu Leu Pro Arg
 115 120 125

Cys Pro Gln Pro Pro Ala Leu Leu Thr Leu Leu Trp Thr Arg Gly Cys
 130 135 140

Gly Pro Gln Ser Pro Ala Leu Lys His Leu Leu Ile Thr Ser Leu Ser
 145 150 155 160

Val Leu Arg Thr Cys Ser Pro Ser Leu Trp Ser Met Glu Ser Leu Lys
 165 170 175

Met Gly Arg Ala Ser Val Pro Met Thr Gln Leu Arg Ala Met Leu Ala
 180 185 190

00750-02165200

Phe Leu Trp Met Val Ser Cys Thr Arg Pro His Ser Thr Thr Ser Trp
 195 200 205

Ala Arg Asn Pro Leu Ser Cys Val Thr Trp Gly Pro Thr Thr Pro
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<210> 308

<211> 2498

<212> DNA

<213> Homo sapiens

<400> 308

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<210> 309

<211> 678

<212> DNA

<213> Homo sapiens

<400> 309

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<210> 310

<211> 226

<212> PRT

<213> Homo sapiens

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Met Phe Thr Leu Leu Val Leu Leu Ser Gln Leu Pro Thr Val Thr Leu
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Gly Phe Pro His Cys Ala Arg Gly Pro Lys Ala Ser Lys His Ala Gly
      20             25             30

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Glu Glu Val Phe Thr Ser Lys Glu Glu Ala Asn Phe Phe Ile His Arg
  35             40             45

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Arg Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn
  50             55             60

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Leu Glu Arg Glu Cys Asn Glu Glu Leu Cys Asn Tyr Glu Glu Ala Arg
 65 70 75 80
 Glu Ile Phe Val Asp Glu Asp Lys Thr Ile Ala Phe Trp Gln Glu Tyr
 85 90 95
 Ser Ala Lys Gly Pro Thr Thr Lys Ser Asp Gly Asn Arg Glu Lys Ile
 100 105 110
 Asp Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu
 115 120 125
 Val Ile Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn
 130 135 140
 Arg Leu Gln His Pro Cys Ser Ser Ala Val Tyr Glu Arg Gly Arg His
 145 150 155 160
 Thr Pro Ser Ile Ile Phe Arg Arg Pro Glu Glu Ala Ala Leu Ser Pro
 165 170 175
 Leu Pro Pro Ser Val Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala
 180 185 190
 Val Ala Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Tyr Pro
 195 200 205
 Gly His Thr Lys Gly Phe Arg Val Phe Lys Lys Ser Met Ser Leu Pro
 210 215 220
 Ser His
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<210> 311

<211> 17

<212> PRT

<213> Homo sapiens

<400> 311

Met Phe Thr Leu Leu Val Leu Leu Ser Gln Leu Pro Thr Val Thr Leu
 1 5 10 15

Gly

<210> 312

<211> 209

<212> PRT

<213> Homo sapiens

<400> 312

Phe Pro His Cys Ala Arg Gly Pro Lys Ala Ser Lys His Ala Gly Glu
1 5 10 15

Glu Val Phe Thr Ser Lys Glu Glu Ala Asn Phe Phe Ile His Arg Arg
20 25 30

Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu
35 40 45

Glu Arg Glu Cys Asn Glu Glu Leu Cys Asn Tyr Glu Glu Ala Arg Glu
50 55 60

Ile Phe Val Asp Glu Asp Lys Thr Ile Ala Phe Trp Gln Glu Tyr Ser
65 70 75 80

Ala Lys Gly Pro Thr Thr Lys Ser Asp Gly Asn Arg Glu Lys Ile Asp
85 90 95

Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val
100 105 110

Ile Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn Arg
115 120 125

Leu Gln His Pro Cys Ser Ser Ala Val Tyr Glu Arg Gly Arg His Thr
130 135 140

Pro Ser Ile Ile Phe Arg Arg Pro Glu Glu Ala Ala Leu Ser Pro Leu
145 150 155 160

Pro Pro Ser Val Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala Val
165 170 175

Ala Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Pro Tyr Pro Gly
180 185 190

His Thr Lys Gly Phe Arg Val Phe Lys Lys Ser Met Ser Leu Pro Ser
195 200 205

His

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<210> 313
 <211> 96
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Arg Glu Cys Asn Glu Glu Leu Cys Asn Tyr Glu Glu Ala Arg Glu
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 85 90 95

<210> 314
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 314
 Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val
 1 5 10 15
 Ile Phe Gly Leu Leu Gly Tyr Tyr Leu
 20 25

<210> 315
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 315
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<210> 324
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<212> DNA
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 Val Lys Thr Leu Lys Val Cys Cys Ser Pro Gly Thr Tyr Gly Pro Asp
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 Cys Leu Ala Cys Gln Gly Gly Ser Gln Arg Pro Cys Ser Gly Asn Gly
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 His Met Gly Tyr Gln Gly Pro Leu Cys Thr Asp Cys Met Asp Gly Tyr
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Cys Glu Val Gly Trp Val Leu Asp Glu Gly Ala Cys Val Asp Val Asp
195 200 205

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Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys Lys Glu Cys Ile Ser Gly
245 250 255

Tyr Ala Arg Glu His Gly Gln Cys Ala Asp Val Asp Glu Cys Ser Leu
260 265 270

Ala Glu Lys Thr Cys Val Arg Lys Asn Glu Asn Cys Tyr Asn Thr Pro
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Gly Ser Tyr Val Cys Val Cys Pro Asp Gly Phe Glu Glu Thr Glu Asp
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<212> DNA

<213> Homo sapiens

<400> 329

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<210> 330

<211> 2013

<212> DNA

<213> Homo sapiens

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<211> 671

<212> PRT

<213> Homo sapiens

<400> 331

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15

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20

25

30

Arg Ala Phe Arg Val Arg Ile Ala Gly Asp Ala Pro Leu Gln Gly Val

35	40	45
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Pro Pro Ser Arg Arg Ala Val Leu Gly Ser Pro Arg Val Lys Trp Thr		
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Phe Leu Ser Arg Gly Arg Glu Ala Glu Val Leu Val Ala Arg Gly Val		
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Arg Val Lys Val Asn Glu Ala Tyr Arg Phe Arg Val Ala Leu Pro Ala		
	100	105
Tyr Pro Ala Ser Leu Thr Asp Val Ser Leu Ala Leu Ser Glu Leu Arg		
	115	120
Pro Asn Asp Ser Gly Ile Tyr Arg Cys Glu Val Gln His Gly Ile Asp		
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Asp Ser Ser Asp Ala Val Glu Val Lys Val Lys Gly Val Val Phe Leu		
145	150	155
Tyr Arg Glu Gly Ser Ala Arg Tyr Ala Phe Ser Phe Ser Gly Ala Gln		
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Glu Ala Cys Ala Arg Ile Gly Ala His Ile Ala Thr Pro Glu Gln Leu		
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Tyr Ala Ala Tyr Leu Gly Gly Tyr Glu Gln Cys Asp Ala Gly Trp Leu		
	195	200
Ser Asp Gln Thr Val Arg Tyr Pro Ile Gln Thr Pro Arg Glu Ala Cys		
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Tyr Gly Asp Met Asp Gly Phe Pro Gly Val Arg Asn Tyr Gly Val Val		
225	230	235
Asp Pro Asp Asp Leu Tyr Asp Val Tyr Cys Tyr Ala Glu Asp Leu Asn		
	245	250
Gly Glu Leu Phe Leu Gly Asp Pro Pro Glu Lys Leu Thr Leu Glu Glu		
	260	265
Ala Arg Ala Tyr Cys Gln Glu Arg Gly Ala Glu Ile Ala Thr Thr Gly		
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Gln Leu Tyr Ala Ala Trp Asp Gly Gly Leu Asp His Cys Ser Pro Gly		
		285

290		295		300											
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Arg	Cys	Gly	Gly	Gly	Leu	Pro	Gly	Val	Lys	Thr	Leu	Phe	Leu	Phe	Pro
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Asn	Gln	Thr	Gly	Phe	Pro	Asn	Lys	His	Ser	Arg	Phe	Asn	Val	Tyr	Cys
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Phe	Arg	Asp	Ser	Ala	Gln	Pro	Ser	Ala	Ile	Pro	Glu	Ala	Ser	Asn	Pro
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Glu	Thr	Leu	Glu	Glu	Leu	Gln	Leu	Pro	Gln	Glu	Ala	Thr	Glu	Ser	Glu
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Ser	Arg	Gly	Ala	Ile	Tyr	Ser	Ile	Pro	Ile	Met	Glu	Asp	Gly	Gly	Gly
				405					410					415	
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			420					425					430		
Glu	Phe	Glu	Thr	Gln	Ser	Met	Val	Pro	Pro	Thr	Gly	Phe	Ser	Glu	Glu
		435					440					445			
Glu	Gly	Lys	Ala	Leu	Glu	Glu	Glu	Glu	Lys	Tyr	Glu	Asp	Glu	Glu	Glu
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Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Val	Glu	Asp	Glu	Ala	Leu	Trp
465					470					475					480
Ala	Trp	Pro	Ser	Glu	Leu	Ser	Ser	Pro	Gly	Pro	Glu	Ala	Ser	Leu	Pro
				485					490					495	
Thr	Glu	Pro	Ala	Ala	Gln	Glu	Lys	Ser	Leu	Ser	Gln	Ala	Pro	Ala	Arg
			500					505					510		
Ala	Val	Leu	Gln	Pro	Gly	Ala	Ser	Pro	Leu	Pro	Asp	Gly	Glu	Ser	Glu
		515					520					525			
Ala	Ser	Arg	Pro	Pro	Arg	Val	His	Gly	Pro	Pro	Thr	Glu	Thr	Leu	Pro
	530					535					540				
Thr	Pro	Arg	Glu	Arg	Asn	Leu	Ala	Ser	Pro	Ser	Pro	Ser	Thr	Leu	Val

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Glu Ala Arg Glu Val Gly Glu Ala Thr Gly Gly Pro Glu Leu Ser Gly
565 570 575

Val Pro Arg Gly Glu Ser Glu Glu Thr Gly Ser Ser Glu Gly Ala Pro
580 585 590

Ser Leu Leu Pro Ala Thr Arg Ala Pro Glu Gly Thr Arg Glu Leu Glu
595 600 605

Ala Pro Ser Glu Asp Asn Ser Gly Arg Thr Ala Pro Ala Gly Thr Ser
610 615 620

Val Gln Ala Gln Pro Val Leu Pro Thr Asp Ser Ala Ser Arg Gly Gly
625 630 635 640

Val Ala Val Val Pro Ala Ser Gly Asn Ser Ala Gln Gly Ser Thr Ala
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Leu Ser Ile Leu Leu Leu Phe Phe Pro Leu Gln Leu Trp Val Thr
660 665 670

<210> 332

<211> 22

<212> PRT

<213> Homo sapiens

<400> 332

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Ala Pro Ala Ala Leu Ala
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<210> 333

<211> 649

<212> PRT

<213> Homo sapiens

<400> 333

Asp Val Leu Glu Gly Asp Ser Ser Glu Asp Arg Ala Phe Arg Val Arg
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Ile Ala Gly Asp Ala Pro Leu Gln Gly Val Leu Gly Gly Ala Leu Thr
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Pro	Gly	Val	Lys	Thr	Leu	Phe	Leu	Phe	Pro	Asn	Gln	Thr	Gly	Phe	Pro	305	320
Asn	Lys	His	Ser	Arg	Phe	Asn	Val	Tyr	Cys	Phe	Arg	Asp	Ser	Ala	Gln	325	335
Pro	Ser	Ala	Ile	Pro	Glu	Ala	Ser	Asn	Pro	Ala	Ser	Asn	Pro	Ala	Ser	340	350
Asp	Gly	Leu	Glu	Ala	Ile	Val	Thr	Val	Thr	Glu	Thr	Leu	Glu	Glu	Leu	355	365
Gln	Leu	Pro	Gln	Glu	Ala	Thr	Glu	Ser	Glu	Ser	Arg	Gly	Ala	Ile	Tyr	370	380
Ser	Ile	Pro	Ile	Met	Glu	Asp	Gly	Gly	Gly	Gly	Ser	Ser	Thr	Pro	Glu	385	400
Asp	Pro	Ala	Glu	Ala	Pro	Arg	Thr	Leu	Leu	Glu	Phe	Glu	Thr	Gln	Ser	405	415
Met	Val	Pro	Pro	Thr	Gly	Phe	Ser	Glu	Glu	Glu	Gly	Lys	Ala	Leu	Glu	420	430
Glu	Glu	Glu	Lys	Tyr	Glu	Asp	Glu	Glu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	435	445
Glu	Glu	Glu	Val	Glu	Asp	Glu	Ala	Leu	Trp	Ala	Trp	Pro	Ser	Glu	Leu	450	460
Ser	Ser	Pro	Gly	Pro	Glu	Ala	Ser	Leu	Pro	Thr	Glu	Pro	Ala	Ala	Gln	465	480
Glu	Lys	Ser	Leu	Ser	Gln	Ala	Pro	Ala	Arg	Ala	Val	Leu	Gln	Pro	Gly	485	495
Ala	Ser	Pro	Leu	Pro	Asp	Gly	Glu	Ser	Glu	Ala	Ser	Arg	Pro	Pro	Arg	500	510
Val	His	Gly	Pro	Pro	Thr	Glu	Thr	Leu	Pro	Thr	Pro	Arg	Glu	Arg	Asn	515	525
Leu	Ala	Ser	Pro	Ser	Pro	Ser	Thr	Leu	Val	Glu	Ala	Arg	Glu	Val	Gly	530	540

Glu Ala Thr Gly Gly Pro Glu Leu Ser Gly Val Pro Arg Gly Glu Ser
545 550 555 560

Glu Glu Thr Gly Ser Ser Glu Gly Ala Pro Ser Leu Leu Pro Ala Thr
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Arg Ala Pro Glu Gly Thr Arg Glu Leu Glu Ala Pro Ser Glu Asp Asn
580 585 590

Ser Gly Arg Thr Ala Pro Ala Gly Thr Ser Val Gln Ala Gln Pro Val
595 600 605

Leu Pro Thr Asp Ser Ala Ser Arg Gly Gly Val Ala Val Val Pro Ala
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Phe Phe Pro Leu Gln Leu Trp Val Thr
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<210> 334

<211> 456

<212> PRT

<213> Pigeon pea witches'-broom phytoplasma

<400> 334

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Cys Gly Leu Thr Glu Glu His Cys Lys Asp Ile Gly Ser Ala Leu Arg
35 40 45

Ala Asn Pro Ser Leu Thr Glu Leu Cys Leu Arg Thr Asn Glu Leu Gly
50 55 60

Asp Ala Gly Val His Leu Val Leu Gln Gly Leu Gln Ser Pro Thr Cys
65 70 75 80

Lys Ile Gln Lys Leu Ser Leu Gln Asn Cys Ser Leu Thr Glu Ala Gly
85 90 95

Cys Gly Val Leu Pro Ser Thr Leu Arg Ser Leu Pro Thr Leu Arg Glu

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Gly	Thr	Tyr	Ala	Phe	Gln	Pro	Lys	Cys	Thr	Tyr	Ile	Asn	Met	Leu	Thr	130	135	140
Phe	Thr	Leu	Asp	Arg	Ala	Glu	Phe	Glu	Asp	Gly	Lys	Gly	Lys	Cys	Pro	145	150	155
Tyr	Asp	Pro	Ala	Lys	Gly	His	Thr	Gly	Leu	Leu	Val	Asp	Gly	Glu	Leu	165	170	175
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Trp	Leu	Asn	Glu	Pro	His	Phe	Val	Gly	Ser	Ala	Phe	Val	Pro	Glu	Ser	210	215	220
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Glu	Arg	Ala	Val	Glu	Tyr	Asp	Cys	Tyr	Ser	Glu	Gln	Val	Val	Ala	Arg	245	250	255
Val	Ala	Arg	Val	Cys	Lys	Gly	Asp	Met	Gly	Gly	Ala	Arg	Thr	Leu	Gln	260	265	270
Lys	Lys	Trp	Thr	Thr	Phe	Leu	Lys	Ala	Arg	Leu	Val	Cys	Ser	Ala	Pro	275	280	285
Asp	Trp	Lys	Val	Tyr	Phe	Asn	Gln	Leu	Lys	Ala	Val	His	Thr	Leu	Arg	290	295	300
Gly	Ala	Ser	Trp	His	Asn	Thr	Thr	Phe	Phe	Gly	Val	Phe	Gln	Ala	Arg	305	310	315
Trp	Gly	Asp	Met	Asp	Leu	Ser	Ala	Val	Cys	Glu	Tyr	Gln	Leu	Glu	Gln	325	330	335
Ile	Gln	Gln	Val	Phe	Glu	Gly	Pro	Tyr	Lys	Glu	Tyr	Ser	Glu	Gln	Ala	340	345	350
Gln	Lys	Trp	Ala	Arg	Tyr	Thr	Asp	Pro	Val	Pro	Ser	Pro	Arg	Pro	Gly	355	360	365

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Leu Gly Ala Val Cys Leu Val Leu Leu Leu Val Leu Ser Leu Arg
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690 695 700

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725 730 735

Tyr Tyr Tyr Ser Asp Gly Ser Leu Lys Ile Val Pro Gly His Ala Arg
740 745 750

Cys Gln Pro Gly Gly Gly Pro Pro Ser Pro Pro Pro Gly Ile Pro Gly
755 760 765

Gln Pro Leu Pro Ser Pro Thr Arg Leu His Leu Gly Gly Gly Arg Asn
770 775 780

Ser Asn Ala Asn Gly Tyr Val Arg Leu Gln Leu Gly Gly Glu Asp Arg
785 790 795 800

Gly Gly Ser Gly His Pro Leu Pro Glu Leu Ala Asp Glu Leu Arg Arg
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Ser Val

<210> 336

<211> 3503

<212> DNA

<213> Mus sp.

<400> 336

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<210> 337

<400> 337

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<210> 338

<400> 338

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<210> 339

<211> 348

<212> PRT

<213> *Cricetulus griseus*

<400> 339

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Pro Pro Pro Ala Arg Val Ala Ser Arg Lys Pro Thr Met Cys Gln Arg
20 25 30

Cys Arg Ala Leu Val Asp Lys Phe Asn Gln Gly Met Ala Asn Thr Ala
35 40 45

Arg Lys Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Lys Ser Leu
50 55 60

Ser Lys Tyr Glu Phe Ser Glu Ile Arg Leu Leu Glu Ile Met Glu Gly
65 70 75 80

Leu Cys Asp Ser Asn Asp Phe Glu Cys Asn Gln Leu Leu Glu Gln His
85 90 95

Glu	Glu	Gln	Leu	Glu	Ala	Trp	Trp	Gln	Thr	Leu	Lys	Lys	Glu	Cys	Pro	100	105	110
Asn	Leu	Phe	Glu	Trp	Phe	Cys	Val	His	Thr	Leu	Lys	Ala	Cys	Cys	Leu	115	120	125
Pro	Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Gln	Glu	Cys	Gln	Gly	Gly	Ser	Gln	130	135	140
Arg	Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Asp	Gly	Asp	Gly	Ser	Arg	Gln	145	150	155
Gly	Asp	Gly	Ser	Cys	Gln	Cys	His	Val	Gly	Tyr	Lys	Gly	Pro	Leu	Cys	165	170	175
Ile	Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Leu	Leu	Arg	Asn	Glu	Thr	His	180	185	190
Ser	Phe	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Pro	195	200	205
Thr	Asn	Lys	Gly	Cys	Val	Glu	Cys	Glu	Val	Gly	Trp	Thr	Arg	Val	Glu	210	215	220
Asp	Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Thr	Pro	Pro	Cys	225	230	235
Ser	Asn	Val	Gln	Tyr	Cys	Glu	Asn	Val	Asn	Gly	Ser	Tyr	Thr	Cys	Glu	245	250	255
Glu	Cys	Asp	Ser	Thr	Cys	Val	Gly	Cys	Thr	Gly	Lys	Gly	Pro	Ala	Asn	260	265	270
Cys	Lys	Glu	Cys	Ile	Ser	Gly	Tyr	Ser	Lys	Gln	Lys	Gly	Glu	Cys	Ala	275	280	285
Asp	Ile	Asp	Glu	Cys	Ser	Leu	Glu	Thr	Lys	Val	Cys	Lys	Lys	Glu	Asn	290	295	300
Glu	Asn	Cys	Tyr	Asn	Thr	Pro	Gly	Ser	Phe	Val	Cys	Val	Cys	Pro	Glu	305	310	315
Gly	Phe	Glu	Glu	Asp	Arg	Arg	Cys	Leu	Cys	Thr	Asp	Ser	Arg	Arg	Arg	325	330	335
Ser	Gly	Arg	Gly	Lys	Ser	His	Thr	Ala	Thr	Leu	Pro					340	345	

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 <211> 1399
 <212> DNA
 <213> *Cricetulus griseus*

<400> 340
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 ctgctactgc tgctgctgcc gcctcccgcg cgcggtggcct cccggaagcc gacaatgtgc 180
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<210> 341
 <211> 528
 <212> PRT
 <213> *Homo sapiens*

<400> 341
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 20 25 30
 Arg Ala Phe Arg Val Arg Ile Ala Gly Asp Ala Pro Leu Gln Gly Val
 35 40 45

Leu Gly Gly Ala Leu Thr Ile Pro Cys His Val His Tyr Leu Arg Pro
50 55 60

Pro Pro Ser Arg Arg Ala Val Leu Gly Ser Pro Arg Val Lys Trp Thr
65 70 75 80

Phe Leu Ser Arg Gly Arg Glu Ala Glu Val Leu Val Ala Arg Gly Val
85 90 95

Arg Val Lys Val Asn Glu Ala Tyr Arg Phe Arg Val Ala Leu Pro Ala
100 105 110

Tyr Pro Ala Ser Leu Thr Asp Val Ser Leu Ala Leu Ser Glu Leu Arg
115 120 125

Pro Asn Asp Ser Gly Ile Tyr Arg Cys Glu Val Gln His Gly Ile Asp
130 135 140

Asp Ser Ser Asp Ala Val Glu Ser Ser Gln Arg Tyr Pro Ile Gln Thr
145 150 155 160

Pro Arg Glu Ala Cys Tyr Gly Asp Met Asp Gly Phe Pro Gly Val Arg
165 170 175

Asn Tyr Gly Val Val Asp Pro Asp Asp Leu Tyr Asp Val Tyr Cys Tyr
180 185 190

Ala Glu Asp Leu Asn Gly Glu Leu Phe Leu Gly Asp Pro Pro Glu Lys
195 200 205

Leu Thr Leu Glu Glu Ala Arg Ala Tyr Cys Gln Glu Arg Gly Ala Glu
210 215 220

Ile Ala Thr Thr Gly Gln Leu Tyr Ala Ala Trp Asp Gly Gly Leu Asp
225 230 235 240

His Cys Ser Pro Gly Trp Leu Ala Asp Gly Ser Val Arg Tyr Pro Ile
245 250 255

Val Thr Pro Ser Gln Arg Cys Gly Gly Gly Leu Pro Gly Val Lys Thr
260 265 270

Leu Phe Leu Phe Pro Asn Gln Thr Gly Phe Pro Asn Lys His Ser Arg
275 280 285

Phe Asn Val Tyr Cys Phe Arg Asp Ser Ala Gln Leu Leu Pro Ser Leu
290 295 300

Arg Pro Pro Thr Gln Pro Pro Thr Gln Leu Asp Gly Leu Glu Ala Ile
 305 310 315 320
 Val Thr Val Thr Glu Thr Leu Glu Glu Leu Gln Leu Pro Gln Glu Ala
 325 330 335
 Thr Glu Ser Glu Ser Arg Gly Ala Ile Tyr Ser Ile Pro Ile Met Glu
 340 345 350
 Asp Gly Gly Gly Gly Ser Ser Thr Pro Glu Asp Pro Ala Glu Ala Pro
 355 360 365
 Arg Thr Leu Leu Glu Phe Glu Thr Gln Ser Met Val Pro Pro Thr Gly
 370 375 380
 Phe Ser Glu Glu Glu Gly Lys Ala Leu Glu Glu Glu Glu Lys Tyr Glu
 385 390 395 400
 Asp Glu Glu Glu Lys Glu Glu Glu Glu Glu Glu Glu Val Glu Asp
 405 410 415
 Glu Ala Leu Trp Ala Trp Pro Ser Glu Leu Ser Ser Pro Gly Pro Glu
 420 425 430
 Ala Ser Leu Pro Thr Glu Pro Ala Ala Gln Glu Glu Ser Leu Ser Gln
 435 440 445
 Ala Pro Ala Arg Ala Val Leu Gln Pro Gly Ala Ser Pro Leu Pro Asp
 450 455 460
 Gly Glu Ser Glu Ala Ser Arg Pro Pro Arg Val His Gly Pro Pro Thr
 465 470 475 480
 Glu Thr Leu Pro Thr Pro Arg Glu Arg Asn Leu Ala Ser Pro Ser Pro
 485 490 495
 Ser Thr Leu Val Glu Ala Arg Glu Val Gly Glu Ala Thr Gly Gly Pro
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 Glu Leu Ser Gly Val Pro Arg Gly Gly Ala Arg Thr Gln Phe Ala Leu
 515 520 525

<210> 342

<211> 883

<212> PRT

<213> Mus sp.

<400> 342

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Arg Ala Phe Arg Val Arg Ile Gly Ala Ala Gln Leu Arg Gly Val Leu
35 40 45

Gly Gly Ala Leu Ala Ile Pro Cys His Val His His Leu Arg Pro Pro
50 55 60

Arg Ser Arg Arg Ala Ala Pro Gly Phe Pro Arg Val Lys Trp Thr Phe
65 70 75 80

Leu Ser Gly Asp Arg Glu Val Glu Val Leu Val Ala Arg Gly Leu Arg
85 90 95

Val Lys Val Asn Glu Ala Tyr Arg Phe Arg Val Ala Leu Pro Ala Tyr
100 105 110

Pro Ala Ser Leu Thr Asp Val Ser Leu Val Leu Ser Glu Leu Arg Pro
115 120 125

Asn Asp Ser Gly Val Tyr Arg Cys Glu Val Gln His Gly Ile Asp Asp
130 135 140

Ser Ser Asp Ala Val Glu Val Lys Val Lys Gly Val Val Phe Leu Tyr
145 150 155 160

Arg Glu Gly Ser Ala Arg Tyr Ala Phe Ser Phe Ala Gly Ala Gln Glu
165 170 175

Ala Cys Ala Arg Ile Gly Ala Arg Ile Ala Thr Pro Glu Gln Leu Tyr
180 185 190

Ala Ala Tyr Leu Gly Gly Tyr Glu Gln Cys Asp Ala Gly Trp Leu Ser
195 200 205

Asp Gln Thr Val Arg Tyr Pro Ile Gln Asn Pro Arg Glu Ala Cys Ser
210 215 220

Gly Asp Met Asp Gly Tyr Pro Gly Val Arg Asn Tyr Gly Val Val Gly
225 230 235 240

Pro Asp Asp Leu Tyr Asp Val Tyr Cys Tyr Ala Glu Asp Leu Asn Gly
 245 250 255
 Glu Leu Phe Leu Gly Ala Pro Pro Ser Lys Leu Thr Trp Glu Glu Ala
 260 265 270
 Arg Asp Tyr Cys Leu Glu Arg Gly Ala Gln Ile Ala Ser Thr Gly Gln
 275 280 285
 Leu Tyr Ala Ala Trp Asn Gly Gly Leu Asp Arg Cys Ser Pro Gly Trp
 290 295 300
 Leu Ala Asp Gly Ser Val Arg Tyr Pro Ile Ile Thr Pro Ser Gln Arg
 305 310 315 320
 Cys Gly Gly Gly Leu Pro Gly Val Lys Thr Leu Phe Leu Phe Pro Asn
 325 330 335
 Gln Thr Gly Phe Pro Ser Lys Gln Asn Arg Phe Asn Val Tyr Cys Phe
 340 345 350
 Arg Asp Ser Ala His Pro Ser Ala Ser Ser Glu Ala Ser Ser Pro Ala
 355 360 365
 Ser Asp Gly Leu Glu Ala Ile Val Thr Val Thr Glu Lys Leu Glu Glu
 370 375 380
 Leu Gln Leu Pro Gln Glu Ala Met Glu Ser Glu Ser Arg Gly Ala Ile
 385 390 395 400
 Tyr Ser Ile Pro Ile Ser Glu Asp Gly Gly Gly Gly Ser Ser Thr Pro
 405 410 415
 Glu Asp Pro Ala Glu Ala Pro Arg Thr Pro Leu Glu Ser Glu Thr Gln
 420 425 430
 Ser Ile Ala Pro Pro Thr Glu Ser Ser Glu Glu Glu Gly Val Ala Leu
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 Glu Glu Glu Glu Arg Phe Lys Asp Leu Glu Ala Leu Glu Glu Glu Lys
 450 455 460
 Glu Gln Glu Asp Leu Trp Val Trp Pro Arg Glu Leu Ser Ser Pro Leu
 465 470 475 480
 Pro Thr Gly Ser Glu Thr Glu His Ser Leu Ser Gln Val Ser Pro Pro
 485 490 495

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Arg	Phe	Arg	Gly	Pro	Pro	Ala	Glu	Thr	Leu	Leu	Pro	Pro	Arg	Glu	Trp		
		515					520					525					
Ser	Ala	Thr	Ser	Thr	Pro	Gly	Gly	Ala	Arg	Glu	Val	Gly	Gly	Glu	Thr		
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			565					570						575			
Pro	Val	Gly	Pro	Arg	Glu	Leu	Glu	Thr	Pro	Ser	Glu	Glu	Lys	Ser	Gly		
			580					585					590				
Arg	Thr	Val	Leu	Ala	Gly	Thr	Ser	Val	Gln	Ala	Gln	Pro	Val	Leu	Pro		
		595					600					605					
Thr	Asp	Ser	Ala	Ser	His	Gly	Gly	Val	Ala	Val	Ala	Pro	Ser	Ser	Gly		
	610					615					620						
Asp	Cys	Ile	Pro	Ser	Pro	Cys	His	Asn	Gly	Gly	Thr	Cys	Leu	Glu	Glu		
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Lys	Glu	Gly	Phe	Arg	Cys	Leu	Cys	Leu	Pro	Gly	Tyr	Gly	Gly	Asp	Leu		
			645					650						655			
Cys	Asp	Val	Gly	Leu	His	Phe	Cys	Ser	Pro	Gly	Trp	Glu	Ala	Phe	Gln		
		660						665						670			
Gly	Ala	Cys	Tyr	Lys	His	Phe	Ser	Thr	Arg	Arg	Ser	Trp	Glu	Glu	Ala		
		675					680					685					
Glu	Ser	Gln	Cys	Arg	Ala	Leu	Gly	Ala	His	Leu	Thr	Ser	Ile	Cys	Thr		
	690					695					700						
Pro	Glu	Glu	Gln	Asp	Phe	Val	Asn	Asp	Arg	Tyr	Arg	Glu	Tyr	Gln	Trp		
705					710					715					720		
Ile	Gly	Leu	Asn	Asp	Arg	Thr	Ile	Glu	Gly	Asp	Phe	Leu	Trp	Ser	Asp		
			725					730						735			
Gly	Ala	Pro	Leu	Leu	Tyr	Glu	Asn	Trp	Asn	Pro	Gly	Gln	Pro	Asp	Ser		
		740						745						750			

Tyr Phe Leu Ser Gly Glu Asn Cys Val Val Met Val Trp His Asp Gln
755 760 765

Gly Gln Trp Ser Asp Val Pro Cys Asn Tyr His Leu Ser Tyr Thr Cys
770 775 780

Lys Met Gly Leu Val Ser Cys Gly Pro Pro Pro Gln Leu Pro Leu Ala
785 790 795 800

Gln Ile Phe Gly Arg Pro Arg Leu Arg Tyr Ala Val Asp Thr Val Leu
805 810 815

Arg Tyr Arg Cys Arg Asp Gly Leu Ala Gln Arg Asn Leu Pro Leu Ile
820 825 830

Arg Cys Gln Glu Asn Gly Leu Trp Glu Ala Pro Gln Ile Ser Cys Val
835 840 845

Pro Arg Arg Pro Gly Arg Ala Leu Arg Ser Met Asp Ala Pro Glu Gly
850 855 860

Pro Arg Gly Gln Leu Ser Arg His Arg Lys Ala Pro Leu Thr Pro Pro
865 870 875 880

Ser Ser Leu

<210> 343

<211> 3153

<212> DNA

<213> Mus sp.

<400> 343

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<210> 346
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<210> 351
<211> 2002
<212> DNA
<213> Gerbil

<400> 351
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gttctgtagt tatgaagaag ccagagagat cctcggggac aacgaagaaa tgatcacatt 360
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aggatttagg gtatttaaaa agtcaatgtc actcccatct cactaagccc accttgccgc 780

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 <211> 675
 <212> DNA
 <213> Gerbil

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<400> 352
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cccgggaacc tggagagaga gtgctatgag gagttctgta gttatgaaga agccagagag 240
atcctcgggg acaacgaaga aatgatcaca ttctggcggg aatattcagt caaaggacca 300
accacaagat cagatgtcaa caaagagaaa attgatgtta tgggccttct gactggctta 360
attgcggctg gagtattctt gggtgttttt ggcttacttg gttactatct gtgtatcacc 420
aagtgttaata ggcagccata tcaaggttct tcagctgtct acacaagaag gaccaggcac 480
acaccgtcca tcattttcag aacccatgag gaagctgtct tgtctccatc gtcactctca 540
gaggacgagg gactaccttc ctatgaacag gcagtagctc tgaccagaaa acacagtgtc 600
tcaccaccac ctccatatcc tgggccagca aaaggattta gggattttaa aaagtcaatg 660
tactcccat ctac 675

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<210> 353
 <211> 225
 <212> PRT
 <213> Gerbil

<400> 353

Met Phe Leu Leu Leu Val Val Leu Ser Gln Leu Pro Arg Leu Thr Leu
1 5 10 15

Ala Val Pro His Thr Arg Ser Leu Lys Asn Ser Glu His Ala Pro Glu
20 25 30

Gly Val Phe Ala Ser Lys Lys Ala Ala Ser Ile Phe Met His Arg Arg
35 40 45

Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu
50 55 60

Glu Arg Glu Cys Tyr Glu Glu Phe Cys Ser Tyr Glu Glu Ala Arg Glu
65 70 75 80

Ile Leu Gly Asp Asn Glu Glu Met Ile Thr Phe Trp Arg Glu Tyr Ser
85 90 95

Val Lys Gly Pro Thr Thr Arg Ser Asp Val Asn Lys Glu Lys Ile Asp
100 105 110

Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val
115 120 125

Val Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn Arg
130 135 140

Gln Pro Tyr Gln Gly Ser Ser Ala Val Tyr Thr Arg Arg Thr Arg His
145 150 155 160

Thr Pro Ser Ile Ile Phe Arg Thr His Glu Glu Ala Val Leu Ser Pro
165 170 175

Ser Ser Ser Ser Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala Val
180 185 190

Ala Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Pro Tyr Pro Gly
195 200 205

Pro Ala Lys Gly Phe Arg Val Phe Lys Lys Ser Met Ser Leu Pro Ser
210 215 220

His
225

<210> 354

<211> 17
 <212> PRT
 <213> Gerbil

<400> 354
 Met Phe Leu Leu Leu Val Val Leu Ser Gln Leu Pro Arg Leu Thr Leu
 1 5 10 15
 Ala

<210> 355
 <211> 208
 <212> PRT
 <213> Gerbil

<400> 355
 Val Pro His Thr Arg Ser Leu Lys Asn Ser Glu His Ala Pro Glu Gly
 1 5 10 15
 Val Phe Ala Ser Lys Lys Ala Ala Ser Ile Phe Met His Arg Arg Leu
 20 25 30
 Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu Glu
 35 40 45
 Arg Glu Cys Tyr Glu Glu Phe Cys Ser Tyr Glu Glu Ala Arg Glu Ile
 50 55 60
 Leu Gly Asp Asn Glu Glu Met Ile Thr Phe Trp Arg Glu Tyr Ser Val
 65 70 75 80
 Lys Gly Pro Thr Thr Arg Ser Asp Val Asn Lys Glu Lys Ile Asp Val
 85 90 95
 Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val Val
 100 105 110
 Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn Arg Gln
 115 120 125
 Pro Tyr Gln Gly Ser Ser Ala Val Tyr Thr Arg Arg Thr Arg His Thr
 130 135 140
 Pro Ser Ile Ile Phe Arg Thr His Glu Glu Ala Val Leu Ser Pro Ser
 145 150 155 160

Ser Ser Ser Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala Val Ala
165 170 175

Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Tyr Pro Gly Pro
180 185 190

Ala Lys Gly Phe Arg Val Phe Lys Lys Ser Met Ser Leu Pro Ser His
195 200 205

<210> 356

<211> 95

<212> PRT

<213> Gerbil

<400> 356

Val Pro His Thr Arg Ser Leu Lys Asn Ser Glu His Ala Pro Glu Gly
1 5 10 15

Val Phe Ala Ser Lys Lys Ala Ala Ser Ile Phe Met His Arg Arg Leu
20 25 30

Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu Glu
35 40 45

Arg Glu Cys Tyr Glu Glu Phe Cys Ser Tyr Glu Glu Ala Arg Glu Ile
50 55 60

Leu Gly Asp Asn Glu Glu Met Ile Thr Phe Trp Arg Glu Tyr Ser Val
65 70 75 80

Lys Gly Pro Thr Thr Arg Ser Asp Val Asn Lys Glu Lys Ile Asp
85 90 95

<210> 357

<211> 25

<212> PRT

<213> Gerbil

<400> 357

Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val
1 5 10 15

Val Phe Gly Leu Leu Gly Tyr Tyr Leu

20

25

<210> 358
<211> 88
<212> PRT
<213> Gerbil

<400> 358
Cys Ile Thr Lys Cys Asn Arg Gln Pro Tyr Gln Gly Ser Ser Ala Val
1 5 10 15

Tyr Thr Arg Arg Thr Arg His Thr Pro Ser Ile Ile Phe Arg Thr His
20 25 30

Glu Glu Ala Val Leu Ser Pro Ser Ser Ser Ser Glu Asp Ala Gly Leu
35 40 45

Pro Ser Tyr Glu Gln Ala Val Ala Leu Thr Arg Lys His Ser Val Ser
50 55 60

Pro Pro Pro Pro Tyr Pro Gly Pro Ala Lys Gly Phe Arg Val Phe Lys
65 70 75 80

Lys Ser Met Ser Leu Pro Ser His
85

<210> 359
<400> 359
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<210> 360
<400> 360
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<210> 361
<400> 361
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<210> 362
<211> 962
<212> DNA
<213> Mus sp.

<400> 362

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aagaacaggc tctacctgca caacaacccg ctgccctgtg actgcagcct ctaccacctg 180
ctccggcgct ggcaccagcg gggcctgagt gccctgcatg attttgaacg cgagtacaca 240
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tgggtctccc cgaagaatga gctgcttgtg gcgccagcct ctcaggatgg tagcatcgct 480
gtgttggtcg atggcagctt agccataggc aggggtgcaag agcagcacgc aggcgtcttt 540
gtgtgcctgg ccagtgggcc ccgcctgcac cacaaccaga cacttgagta caatgtgagt 600
gtgcaaaagg ctgcgcccga gccagagact ttcaacacag gctttaccac cctgctgggc 660
tgtattgtgg gcctgggtgct ggtgttctgc tacttgtttg caccaccctg tcgtggctgc 720
tgtcactgct gtcagcgggc ctgccgcaac cgttgctggc cccgggcac cagtccactc 780
caggagctga gcgcacagtc ctccatgctt agcactacgc caccagatgc acccagccgc 840
aaggccagtg tccacaagca tgttgtcttc ctggagccgg gcaagaaggg cctcaatggc 900
cgtgtgcagc tcgcagtacc tccagactcc gatctgtgca accccatggg cttgcaactc 960
aa

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<210> 363

<211> 320

<212> PRT

<213> Mus sp.

<400> 363

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Pro Phe Leu Phe Asn His Leu His Gly Leu Gly Leu Thr Arg Leu Arg
 1             5             10             15

Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu
          20             25             30

Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn
          35             40             45

Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp
          50             55             60

His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr
          65             70             75             80

Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His
          85             90             95

Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Ala Pro Gly Leu Glu
          100            105            110

Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu

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115	120	125
Phe Cys Asn Thr Ser Val	Pro Ala Thr Arg Val	Ala Trp Val Ser Pro
130	135	140
Lys Asn Glu Leu Leu Val	Ala Pro Ala Ser Gln Asp	Gly Ser Ile Ala
145	150	155 160
Val Leu Ala Asp Gly Ser	Leu Ala Ile Gly Arg Val	Gln Glu Gln His
165	170	175
Ala Gly Val Phe Val Cys	Leu Ala Ser Gly Pro Arg	Leu His His Asn
180	185	190
Gln Thr Leu Glu Tyr Asn	Val Ser Val Gln Lys Ala	Arg Pro Glu Pro
195	200	205
Glu Thr Phe Asn Thr Gly	Phe Thr Thr Leu Leu Gly	Cys Ile Val Gly
210	215	220
Leu Val Leu Val Leu Leu	Tyr Leu Phe Ala Pro	Pro Cys Arg Gly Cys
225	230	235 240
Cys His Cys Cys Gln Arg	Ala Cys Arg Asn Arg	Cys Trp Pro Arg Ala
245	250	255
Ser Ser Pro Leu Gln Glu	Leu Ser Ala Gln Ser	Ser Met Leu Ser Thr
260	265	270
Thr Pro Pro Asp Ala Pro	Ser Arg Lys Ala Ser	Val His Lys His Val
275	280	285
Val Phe Leu Glu Pro Gly	Lys Lys Gly Leu Asn	Gly Arg Val Gln Leu
290	295	300
Ala Val Pro Pro Asp Ser	Asp Leu Cys Asn Pro	Met Gly Leu Gln Leu
305	310	315 320

<210> 364
 <211> 16
 <212> PRT
 <213> Mus sp.

 <400> 364

Pro Phe Leu Phe Asn His Leu His Gly Leu Gly Leu Thr Arg Leu Arg
 1 5 10 15

<210> 365

<211> 304

<212> PRT

<213> Mus sp.

<400> 365

Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu
 1 5 10 15

Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn
 20 25 30

Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp
 35 40 45

His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr
 50 55 60

Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His
 65 70 75 80

Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Ala Pro Gly Leu Glu
 85 90 95

Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu
 100 105 110

Phe Cys Asn Thr Ser Val Pro Ala Thr Arg Val Ala Trp Val Ser Pro
 115 120 125

Lys Asn Glu Leu Leu Val Ala Pro Ala Ser Gln Asp Gly Ser Ile Ala
 130 135 140

Val Leu Ala Asp Gly Ser Leu Ala Ile Gly Arg Val Gln Glu Gln His
 145 150 155 160

Ala Gly Val Phe Val Cys Leu Ala Ser Gly Pro Arg Leu His His Asn
 165 170 175

Gln Thr Leu Glu Tyr Asn Val Ser Val Gln Lys Ala Arg Pro Glu Pro
 180 185 190

Glu Thr Phe Asn Thr Gly Phe Thr Thr Leu Leu Gly Cys Ile Val Gly
 195 200 205

Leu Val Leu Val Leu Leu Tyr Leu Phe Ala Pro Pro Cys Arg Gly Cys
210 215 220

Cys His Cys Cys Gln Arg Ala Cys Arg Asn Arg Cys Trp Pro Arg Ala
225 230 235 240

Ser Ser Pro Leu Gln Glu Leu Ser Ala Gln Ser Ser Met Leu Ser Thr
245 250 255

Thr Pro Pro Asp Ala Pro Ser Arg Lys Ala Ser Val His Lys His Val
260 265 270

Val Phe Leu Glu Pro Gly Lys Lys Gly Leu Asn Gly Arg Val Gln Leu
275 280 285

Ala Val Pro Pro Asp Ser Asp Leu Cys Asn Pro Met Gly Leu Gln Leu
290 295 300

<210> 366

<211> 197

<212> PRT

<213> Mus sp.

<400> 366

Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu
1 5 10 15

Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn
20 25 30

Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp
35 40 45

His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr
50 55 60

Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His
65 70 75 80

Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Ala Pro Gly Leu Glu
85 90 95

Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu

100	105	110
Phe Cys Asn Thr Ser Val Pro Ala Thr Arg Val Ala Trp Val Ser Pro		
115	120	125
Lys Asn Glu Leu Leu Val Ala Pro Ala Ser Gln Asp Gly Ser Ile Ala		
130	135	140
Val Leu Ala Asp Gly Ser Leu Ala Ile Gly Arg Val Gln Glu Gln His		
145	150	155
Ala Gly Val Phe Val Cys Leu Ala Ser Gly Pro Arg Leu His His Asn		
165	170	175
Gln Thr Leu Glu Tyr Asn Val Ser Val Gln Lys Ala Arg Pro Glu Pro		
180	185	190
Glu Thr Phe Asn Thr		
195		
<210> 367		
<211> 20		
<212> PRT		
<213> Mus sp.		
<400> 367		
Gly Phe Thr Thr Leu Leu Gly Cys Ile Val Gly Leu Val Leu Val Leu		
1 5 10 15		
Leu Tyr Leu Phe		
20		
<210> 368		
<211> 87		
<212> PRT		
<213> Mus sp.		
<400> 368		
Ala Pro Pro Cys Arg Gly Cys Cys His Cys Cys Gln Arg Ala Cys Arg		
1 5 10 15		
Asn Arg Cys Trp Pro Arg Ala Ser Ser Pro Leu Gln Glu Leu Ser Ala		
20 25 30		
Gln Ser Ser Met Leu Ser Thr Thr Pro Pro Asp Ala Pro Ser Arg Lys		
35 40 45		

Ala Ser Val His Lys His Val Val Phe Leu Glu Pro Gly Lys Lys Gly
 50 55 60

Leu Asn Gly Arg Val Gln Leu Ala Val Pro Pro Asp Ser Asp Leu Cys
 65 70 75 80

Asn Pro Met Gly Leu Gln Leu
 85

<210> 369
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:PCR Primer

<400> 369
 attattcaga aggatgtccc gtgg 24

<210> 370
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:PCR Primer

<400> 370
 cctcctgatt acctacaatg gtc 23

<210> 371
 <211> 1656
 <212> DNA
 <213> Homo sapiens

<400> 371
 gtcgaccac gcgtccgccc acgcgtccgg cccatggcgc cgcccgcgc ccgcctcgcc 60
 ctgctctccg ccgcggcgct cagctggcg gcccgcccgc cgctagccc cggcctcggc 120
 cccggaccgc agtgtttcac agccaatggt gcggattata ggggaacaca gaactggaca 180
 gcactacaag gcgggaagcc atgtctgttt tggaacgaga ctttccagca tccatacaac 240
 actctgaaat accccaacgc ggaggggggc ctgggtgagc acaactattg cagaaatcca 300
 gatggagacg tgagcccctg gtgctatgtg gcagagcacg aggatggtgt ctactggaag 360
 tactgtgaga tacctgcttg ccagatgcct ggaaaccttg gctgctacaa ggatcatgga 420

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aaccacacctc ctctaactgg caccagtaaa acgtccaaca aactcaccat acaaacttgc 480
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ttctgtggaa acaatcctga ttactggaag tacggggagg cagccagtac cgaatgcaac 600
agcgtctgct tcgggggatca caccacaacc tgtggtggcg atggcaggat catcctcttt 660
gatactctcg tgggcgcctg cgggtgggaac tactcagcca tgtcttctgt ggtctattcc 720
cctgacttcc ccgacaccta tgccacgggg agggctctgct actggaccat ccgggttccg 780
ggggcctccc acatccactt cagcttcccc ctatttgaca tcagggactc ggcgacatg 840
gtggagcttc tggatggcta caccacccgt gtcctagccc gcttccacgg gaggagccgc 900
ccacctctgt ccttcaacgt ctctctggac ttcgatcatct tgtatttctt ctctgatcgc 960
atcaatcagg cccagggatt tgctgtttta taccaagccg tcaaggaaga actgccacag 1020
gagaggcccg ctgtcaacca gacggtggcc gaggtgatca cggagcaggc caacctcagt 1080
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cctcagactg tcccaggtag caattcctgg gcgccaccca tgggggctgg aagccacaga 1200
gttgaaggat ggacagtcta tggctctggca actctcctca tcctcacagt cacagccatt 1260
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ctcaaggctg ccgtggtcaa cctctcctgt ggttcttctc tgacagactc ttccctcctc 1560
tccctctgcc tcggcctctt cggggaaacc ctctcctac agactaggaa gaggcacctg 1620
ctgccagggc aggcagagcc tggattcctc ctgctt 1656

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<210> 372
<211> 1425
<212> DNA
<213> Homo sapiens

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<400> 372
atggcgccgc ccgcgcgccg cctcgccctg ctctccgcgc cggcgctcac gctggcgcc 60
cggcccgccg ctagccccgg cctcgccccc ggacccgagt gtttcacagc caatgggtgc 120
gattataggg gaacacagaa ctggacagca ctacaaggcg ggaagccatg tctgttttgg 180
aacgagactt tccagcatcc atacaacact ctgaaatacc ccaacgggga ggggggcctg 240
ggtgagcaca actattgcag aaatccagat ggagacgtga gcccctggtg ctatgtggca 300
gagcacgagg atggtgtcta ctggaagtac tgtgagatac ctgcttgcca gatgcctgga 360
aaccttggct gctacaagga tcatggaaac ccacctcctc taactggcac cagtaaaacg 420
tccaacaaac tcaccataca aacttgcatc agtttttgtc ggagtcagag gttcaagttt 480
gctgggatgg agtcaggcta tgcttgcttc tgtggaacaa atcctgatta ctggaagtac 540
ggggaggcag ccagtaccga atgcaacagc gtctgcttgc gggatcacac ccaacctgt 600
ggtggcgatg gcaggatcat cctctttgat actctcgtgg gcgcctgcgg tgggaactac 660
tcagccatgt cttctgtggt ctattcccc gacttccccg acacctatgc cacggggagg 720
gtctgtact ggaccatccg ggttcggggg gcctcccaca tccacttcag ctcccccta 780
tttgacatca gggactcggc ggacatggtg gagcttctgg atggctacac ccaccgtgtc 840
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caagccgtca aggaagaact gccacaggag agggccgctg tcaaccagac ggtggccgag 1020
gtgatcacgg agcaggccaa cctcagtgtc agcgtgccc ggtcctccaa agtcctctat 1080
gtcatcacca ccagccccag ccaccacct cagactgtcc caggtagcaa ttctggggcg 1140

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tcccacgtg ttctgcttc aggggacctt agggattgtc atcaaccagg gacttcgggg 1320
gaaatctgga gcatttttta caagccttcc acttcaattt ccatctttta gaagaaactc 1380
aagggtcaga gtcaacaaga tgaccgcaat ccccttgtga gtgac 1425

<210> 373

<211> 475

<212> PRT

<213> Homo sapiens

<400> 373

Met Ala Pro Pro Ala Ala Arg Leu Ala Leu Leu Ser Ala Ala Ala Leu
1 5 10 15

Thr Leu Ala Ala Arg Pro Ala Pro Ser Pro Gly Leu Gly Pro Gly Pro
20 25 30

Glu Cys Phe Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Asn Trp
35 40 45

Thr Ala Leu Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe
50 55 60

Gln His Pro Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu
65 70 75 80

Gly Glu His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp
85 90 95

Cys Tyr Val Ala Glu His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu
100 105 110

Ile Pro Ala Cys Gln Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His
115 120 125

Gly Asn Pro Pro Pro Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu
130 135 140

Thr Ile Gln Thr Cys Ile Ser Phe Cys Arg Ser Gln Arg Phe Lys Phe
145 150 155 160

Ala Gly Met Glu Ser Gly Tyr Ala Cys Phe Cys Gly Asn Asn Pro Asp
165 170 175

Tyr Trp Lys Tyr Gly Glu Ala Ala Ser Thr Glu Cys Asn Ser Val Cys
180 185 190

Phe Gly Asp His Thr Gln Pro Cys Gly Gly Asp Gly Arg Ile Ile Leu
195 200 205

Phe Asp Thr Leu Val Gly Ala Cys Gly Gly Asn Tyr Ser Ala Met Ser
210 215 220

Ser Val Val Tyr Ser Pro Asp Phe Pro Asp Thr Tyr Ala Thr Gly Arg
225 230 235 240

Val Cys Tyr Trp Thr Ile Arg Val Pro Gly Ala Ser His Ile His Phe
245 250 255

Ser Phe Pro Leu Phe Asp Ile Arg Asp Ser Ala Asp Met Val Glu Leu
260 265 270

Leu Asp Gly Tyr Thr His Arg Val Leu Ala Arg Phe His Gly Arg Ser
275 280 285

Arg Pro Pro Leu Ser Phe Asn Val Ser Leu Asp Phe Val Ile Leu Tyr
290 295 300

Phe Phe Ser Asp Arg Ile Asn Gln Ala Gln Gly Phe Ala Val Leu Tyr
305 310 315 320

Gln Ala Val Lys Glu Glu Leu Pro Gln Glu Arg Pro Ala Val Asn Gln
325 330 335

Thr Val Ala Glu Val Ile Thr Glu Gln Ala Asn Leu Ser Val Ser Ala
340 345 350

Ala Arg Ser Ser Lys Val Leu Tyr Val Ile Thr Thr Ser Pro Ser His
355 360 365

Pro Pro Gln Thr Val Pro Gly Ser Asn Ser Trp Ala Pro Pro Met Gly
370 375 380

Ala Gly Ser His Arg Val Glu Gly Trp Thr Val Tyr Gly Leu Ala Thr
385 390 395 400

Leu Leu Ile Leu Thr Val Thr Ala Ile Val Ala Lys Ile Leu Leu His
405 410 415

Val Thr Phe Lys Ser His Arg Val Pro Ala Ser Gly Asp Leu Arg Asp
420 425 430

Cys His Gln Pro Gly Thr Ser Gly Glu Ile Trp Ser Ile Phe Tyr Lys
435 440 445

Pro Ser Thr Ser Ile Ser Ile Phe Lys Lys Lys Leu Lys Gly Gln Ser
 450 455 460

Gln Gln Asp Asp Arg Asn Pro Leu Val Ser Asp
 465 470 475

<210> 374
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 374
 Met Ala Pro Pro Ala Ala Arg Leu Ala Leu Leu Ser Ala Ala Ala Leu
 1 5 10 15

Thr Leu Ala

<210> 375
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 375
 Ala Arg Pro Ala Pro Ser Pro Gly Leu Gly Pro Gly Pro Glu Cys Phe
 1 5 10 15

Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Asn Trp Thr Ala Leu
 20 25 30

Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His Pro
 35 40 45

Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu Gly Glu His
 50 55 60

Asn Tyr Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp Cys Tyr Val
 65 70 75 80

Ala Glu His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu Ile Pro Ala
 85 90 95

Cys Gln Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His Gly Asn Pro
 100 105 110

Pro Pro Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu Thr Ile Gln
 115 120 125
 Thr Cys Ile Ser Phe Cys Arg Ser Gln Arg Phe Lys Phe Ala Gly Met
 130 135 140
 Glu Ser Gly Tyr Ala Cys Phe Cys Gly Asn Asn Pro Asp Tyr Trp Lys
 145 150 155 160
 Tyr Gly Glu Ala Ala Ser Thr Glu Cys Asn Ser Val Cys Phe Gly Asp
 165 170 175
 His Thr Gln Pro Cys Gly Gly Asp Gly Arg Ile Ile Leu Phe Asp Thr
 180 185 190
 Leu Val Gly Ala Cys Gly Gly Asn Tyr Ser Ala Met Ser Ser Val Val
 195 200 205
 Tyr Ser Pro Asp Phe Pro Asp Thr Tyr Ala Thr Gly Arg Val Cys Tyr
 210 215 220
 Trp Thr Ile Arg Val Pro Gly Ala Ser His Ile His Phe Ser Phe Pro
 225 230 235 240
 Leu Phe Asp Ile Arg Asp Ser Ala Asp Met Val Glu Leu Leu Asp Gly
 245 250 255
 Tyr Thr His Arg Val Leu Ala Arg Phe His Gly Arg Ser Arg Pro Pro
 260 265 270
 Leu Ser Phe Asn Val Ser Leu Asp Phe Val Ile Leu Tyr Phe Phe Ser
 275 280 285
 Asp Arg Ile Asn Gln Ala Gln Gly Phe Ala Val Leu Tyr Gln Ala Val
 290 295 300
 Lys Glu Glu Leu Pro Gln Glu Arg Pro Ala Val Asn Gln Thr Val Ala
 305 310 315 320
 Glu Val Ile Thr Glu Gln Ala Asn Leu Ser Val Ser Ala Ala Arg Ser
 325 330 335
 Ser Lys Val Leu Tyr Val Ile Thr Thr Ser Pro Ser His Pro Pro Gln
 340 345 350
 Thr Val Pro Gly Ser Asn Ser Trp Ala Pro Pro Met Gly Ala Gly Ser
 355 360 365

His Arg Val Glu Gly Trp Thr Val Tyr Gly Leu Ala Thr Leu Leu Ile
 370 375 380

Leu Thr Val Thr Ala Ile Val Ala Lys Ile Leu Leu His Val Thr Phe
 385 390 395 400

Lys Ser His Arg Val Pro Ala Ser Gly Asp Leu Arg Asp Cys His Gln
 405 410 415

Pro Gly Thr Ser Gly Glu Ile Trp Ser Ile Phe Tyr Lys Pro Ser Thr
 420 425 430

Ser Ile Ser Ile Phe Lys Lys Lys Leu Lys Gly Gln Ser Gln Gln Asp
 435 440 445

Asp Arg Asn Pro Leu Val Ser Asp
 450 455

<210> 376
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 376
 Ala Arg Pro Ala Pro Ser Pro Gly Leu Gly Pro Gly Pro Glu Cys Phe
 1 5 10 15

Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Asn Trp Thr Ala Leu
 20 25 30

Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His Pro
 35 40 45

Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu Gly Glu His
 50 55 60

Asn Tyr Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp Cys Tyr Val
 65 70 75 80

Ala Glu His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu Ile Pro Ala
 85 90 95

Cys Gln Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His Gly Asn Pro
 100 105 110

Pro Pro Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu Thr Ile Gln
 115 120 125

Thr	Cys	Ile	Ser	Phe	Cys	Arg	Ser	Gln	Arg	Phe	Lys	Phe	Ala	Gly	Met	130	135	140	
Glu	Ser	Gly	Tyr	Ala	Cys	Phe	Cys	Gly	Asn	Asn	Pro	Asp	Tyr	Trp	Lys	145	150	155	160
Tyr	Gly	Glu	Ala	Ala	Ser	Thr	Glu	Cys	Asn	Ser	Val	Cys	Phe	Gly	Asp	165	170	175	
His	Thr	Gln	Pro	Cys	Gly	Gly	Asp	Gly	Arg	Ile	Ile	Leu	Phe	Asp	Thr	180	185	190	
Leu	Val	Gly	Ala	Cys	Gly	Gly	Asn	Tyr	Ser	Ala	Met	Ser	Ser	Val	Val	195	200	205	
Tyr	Ser	Pro	Asp	Phe	Pro	Asp	Thr	Tyr	Ala	Thr	Gly	Arg	Val	Cys	Tyr	210	215	220	
Trp	Thr	Ile	Arg	Val	Pro	Gly	Ala	Ser	His	Ile	His	Phe	Ser	Phe	Pro	225	230	235	240
Leu	Phe	Asp	Ile	Arg	Asp	Ser	Ala	Asp	Met	Val	Glu	Leu	Leu	Asp	Gly	245	250	255	
Tyr	Thr	His	Arg	Val	Leu	Ala	Arg	Phe	His	Gly	Arg	Ser	Arg	Pro	Pro	260	265	270	
Leu	Ser	Phe	Asn	Val	Ser	Leu	Asp	Phe	Val	Ile	Leu	Tyr	Phe	Phe	Ser	275	280	285	
Asp	Arg	Ile	Asn	Gln	Ala	Gln	Gly	Phe	Ala	Val	Leu	Tyr	Gln	Ala	Val	290	295	300	
Lys	Glu	Glu	Leu	Pro	Gln	Glu	Arg	Pro	Ala	Val	Asn	Gln	Thr	Val	Ala	305	310	315	320
Glu	Val	Ile	Thr	Glu	Gln	Ala	Asn	Leu	Ser	Val	Ser	Ala	Ala	Arg	Ser	325	330	335	
Ser	Lys	Val	Leu	Tyr	Val	Ile	Thr	Thr	Ser	Pro	Ser	His	Pro	Pro	Gln	340	345	350	
Thr	Val	Pro	Gly	Ser	Asn	Ser	Trp	Ala	Pro	Pro	Met	Gly	Ala	Gly	Ser	355	360	365	
His	Arg	Val	Glu	Gly												370			

<210> 377
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 377
 Trp Thr Val Tyr Gly Leu Ala Thr Leu Leu Ile Leu Thr Val Thr Ala
 1 5 10 15
 Ile Val Ala Lys Ile Leu Leu
 20

<210> 378
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 378
 His Val Thr Phe Lys Ser His Arg Val Pro Ala Ser Gly Asp Leu Arg
 1 5 10 15
 Asp Cys His Gln Pro Gly Thr Ser Gly Glu Ile Trp Ser Ile Phe Tyr
 20 25 30
 Lys Pro Ser Thr Ser Ile Ser Ile Phe Lys Lys Lys Leu Lys Gly Gln
 35 40 45
 Ser Gln Gln Asp Asp Arg Asn Pro Leu Val Ser Asp
 50 55 60

<210> 379
 <211> 4628
 <212> DNA
 <213> Homo sapiens

<400> 379
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 ctgaattcct gctttctcat cagcagtttt aatggaacag atttgaggtt gaggctggtc 180
 aatggagacg gtccctgctc tgggacagtg gaggtgaaat tccagggaca gtgggggact 240
 gtgtgtgatg atgggtggaa cactactgcc tcaactgtcg tgtgcaaaca gcttggatgt 300
 ccattttctt tcgccatgtt tcgttttgga caagccgtga ctagacatgg aaaaatttgg 360
 cttgatgatg tttcctgtta tggaaatgag tcagctctct gggaatgtca acaccgggaa 420
 tggggaagcc ataactgtta tcatggagaa gatgttggtg tgaactgtta tgggtgaagcc 480

aatctggggtt tgaggctagt ggatggaac aactcctggt cagggagagt ggaggtgaaa 540
 ttccaagaaa ggtgggggac tatatgtgat gatgggtgga acttgaatac tgctgccgtg 600
 gtgtgcaggc aactaggatg tccatcttct tttatttctt ctggagttgt taatagccct 660
 gctgtattgc qccccatttg gctggatgac attttatgcc aggggaatga gttggcactc 720
 tggaattgca gacatcgtgg atggggaaat catgactgca gtcacaatga ggatgtcaca 780
 ttaacttggt atgatagtag tgatcttgaa ctaaggcttg taggtggaac taaccgctgt 840
 atggggagag tagagctgaa aatccaagga aggtggggga ccgtatgcca ccataagtgg 900
 aacaatgctg cagctgatgt cgtatgcaag cagttgggat gtggaaccgc acttcacttc 960
 gctggcttgc ctcatlgtgca gtcagggtct gatgttgtat ggcttgatgg tgtctcctgc 1020
 tccggtaatg aatcttttct ttgggactgc agacattccg gaaccgtcaa ttttgactgt 1080
 cttcatcaaa acgatgtgtc tgtgatctgc tcagatggag cagatttgga actgcgacta 1140
 gcagatggaa gtaacaattg ttcagggaga gtagaggtga gaattcatga acagtgggtg 1200
 acaatatgtg accagaactg gaagaatgaa caagcccttg tggtttgtaa gcagctagga 1260
 tgtccgttca gcgtcttttg cagtcgtcgt gctaaacctg gtaatgaagc tagagacatt 1320
 tggataaaca gcatacttg cactgggaat gagtcagctc tctgggactg cacatatgat 1380
 ggaaaagcaa agcgaacatg cttccgaaga tcagatgctg gagtaatttg ttctgataag 1440
 gcagatctgg acctagggt tgtcggggct catagccctt gttatgggag attggaggtg 1500
 aaataccaag gagagtgggg gactgtgtgt catgacagat ggagcacaag gaatgcagct 1560
 gttgtgtgta aacaattggg atgtggaaag cctatgcatg tgtttggtat gacctatttt 1620
 aaagaagcat caggacctat ttggctggat gacgtttctt gcattggaaa tgagtcaaat 1680
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 tgtgatggag atgagtcaga tctctggtca tgcaggaaac gtgggtgggg aaataatgac 2040
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 cttgtgggtg gaagcagcag gtgtgctgga aaagttgagg tgaatgtcca ggggtgccgtg 2160
 ggaattctgt gtgctaattg ctggggaatg aacattgctg aagttgtttg caggcaactt 2220
 gaatgtgggt ctgcaatcag ggtctccaga gagcctcatt tcacagaaag aacattacac 2280
 atcttaattg cgaattctgg ctgcactgga ggggaagcct ctctctggga ttgtatacga 2340
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 cacaggcagc ccaggctggt tggagctgat atgccctgct ctggacgtgt tgaagtgaaa 2460
 catgcagaca catggcgctc tgtctgtgat tctgatttct ctcttcacgc tgccaatgtg 2520
 ctgtgcagag aattaaattg tggagatgcc atatctcttt ctgtgggaga tcaatttgga 2580
 aaagggaatg gtctaacttg ggccgaaaag ttccagtgtg aaggagagtga aactcacctt 2640
 gcattatgcc ccattgttca acatccggaa gacacttgta tccacagcag agaagttgga 2700
 gttgtctgtt cccgatatac agatgtccga cttgtgaatg gcaaatacca gtgtgacggg 2760
 caagtggaga tcaacgtgct tggacactgg ggctcactgt gtgacacca ctgggacca 2820
 gaagatgccc gtgttctatg cagacagctc agctgtggga ctgctctctc aaccacagga 2880
 ggaaaatata ttggagaaag aagtgttcgt gtgtggggac acaggtttca ttgcttaggg 2940
 aatgagtcac ttctggataa ctgtcaaagt acagttcttg gagcacctcc ctgtatccat 3000
 ggaaatactg tctctgtgat ctgcacagga agcctgacct agccactgtt tccatgcctc 3060
 gcaaattgat ctgaccataa tttgtctgca gttccagagg gcagtgcctt gatctgctta 3120
 gaggacaaac ggctccgctt agtggatggg gacagccgct gtgccgggag agtagagatc 3180
 tatcacgacg gcttctgggg caccatctgt gatgacggct gggacctgag cgatgccac 3240
 gtggtgtgtc aaaagctggg ctgtggagtg gccttcaatg ccacggtctc tgctcacttt 3300
 ggggaggggt cagggcccat ctggctggat gacctgaact gcacaggaac ggagtccac 3360


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tttctatggg actgtcacgc caaacccctgg ggacagagtg actgtggaca caaggaagat 4020
gctggcgtga ggtgctctgg acagtcgctg aaatcactga atgcctcctc aggtcattta 4080
gcacttattt tatccagtat ctttgggctc cttctcctgg ttctgtttat tctattttctc 4140
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tcgctgttgg gagttcttcc tgccctctgaa gccacaaaa 4359

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<210> 381
 <211> 1453
 <212> PRT
 <213> Homo sapiens

<400> 381
 Met Met Leu Pro Gln Asn Ser Trp His Ile Asp Phe Gly Arg Cys Cys
 1 5 10 15

Cys His Gln Asn Leu Phe Ser Ala Val Val Thr Cys Ile Leu Leu Leu
 20 25 30

Asn Ser Cys Phe Leu Ile Ser Ser Phe Asn Gly Thr Asp Leu Glu Leu
 35 40 45

Arg Leu Val Asn Gly Asp Gly Pro Cys Ser Gly Thr Val Glu Val Lys
 50 55 60

Phe Gln Gly Gln Trp Gly Thr Val Cys Asp Asp Gly Trp Asn Thr Thr
 65 70 75 80

Ala Ser Thr Val Val Cys Lys Gln Leu Gly Cys Pro Phe Ser Phe Ala
 85 90 95

Met Phe Arg Phe Gly Gln Ala Val Thr Arg His Gly Lys Ile Trp Leu
 100 105 110

Asp Asp Val Ser Cys Tyr Gly Asn Glu Ser Ala Leu Trp Glu Cys Gln
 115 120 125

His Arg Glu Trp Gly Ser His Asn Cys Tyr His Gly Glu Asp Val Gly
 130 135 140

Val Asn Cys Tyr Gly Glu Ala Asn Leu Gly Leu Arg Leu Val Asp Gly
 145 150 155 160

Asn Asn Ser Cys Ser Gly Arg Val Glu Val Lys Phe Gln Glu Arg Trp
 165 170 175

Gly Thr Ile Cys Asp Asp Gly Trp Asn Leu Asn Thr Ala Ala Val Val
 180 185 190

Cys Arg Gln Leu Gly Cys Pro Ser Ser Phe Ile Ser Ser Gly Val Val
 195 200 205

Asn Ser Pro Ala Val Leu Arg Pro Ile Trp Leu Asp Asp Ile Leu Cys
 210 215 220

Gln Gly Asn Glu Leu Ala Leu Trp Asn Cys Arg His Arg Gly Trp Gly
 225 230 235 240

Asn His Asp Cys Ser His Asn Glu Asp Val Thr Leu Thr Cys Tyr Asp
 245 250 255

Ser Ser Asp Leu Glu Leu Arg Leu Val Gly Gly Thr Asn Arg Cys Met
 260 265 270

Gly Arg Val Glu Leu Lys Ile Gln Gly Arg Trp Gly Thr Val Cys His
 275 280 285

His Lys Trp Asn Asn Ala Ala Ala Asp Val Val Cys Lys Gln Leu Gly
 290 295 300

Cys Gly Thr Ala Leu His Phe Ala Gly Leu Pro His Leu Gln Ser Gly
 305 310 315 320

Ser Asp Val Val Trp Leu Asp Gly Val Ser Cys Ser Gly Asn Glu Ser
 325 330 335

Phe Leu Trp Asp Cys Arg His Ser Gly Thr Val Asn Phe Asp Cys Leu
 340 345 350

His Gln Asn Asp Val Ser Val Ile Cys Ser Asp Gly Ala Asp Leu Glu
 355 360 365

Leu Arg Leu Ala Asp Gly Ser Asn Asn Cys Ser Gly Arg Val Glu Val
 370 375 380

Arg Ile His Glu Gln Trp Trp Thr Ile Cys Asp Gln Asn Trp Lys Asn
 385 390 395 400

Glu Gln Ala Leu Val Val Cys Lys Gln Leu Gly Cys Pro Phe Ser Val
 405 410 415

Phe Gly Ser Arg Arg Ala Lys Pro Ser Asn Glu Ala Arg Asp Ile Trp
 420 425 430

Thr	Ala	Leu	Ser	Thr	Thr	Gly	Gly	Lys	Tyr	Ile	Gly	Glu	Arg	Ser	Val	945	950	955	960
Arg	Val	Trp	Gly	His	Arg	Phe	His	Cys	Leu	Gly	Asn	Glu	Ser	Leu	Leu	965	970	975	
Asp	Asn	Cys	Gln	Met	Thr	Val	Leu	Gly	Ala	Pro	Pro	Cys	Ile	His	Gly	980	985	990	
Asn	Thr	Val	Ser	Val	Ile	Cys	Thr	Gly	Ser	Leu	Thr	Gln	Pro	Leu	Phe	995	1000	1005	
Pro	Cys	Leu	Ala	Asn	Val	Ser	Asp	Pro	Tyr	Leu	Ser	Ala	Val	Pro	Glu	1010	1015	1020	
Gly	Ser	Ala	Leu	Ile	Cys	Leu	Glu	Asp	Lys	Arg	Leu	Arg	Leu	Val	Asp	1025	1030	1035	1040
Gly	Asp	Ser	Arg	Cys	Ala	Gly	Arg	Val	Glu	Ile	Tyr	His	Asp	Gly	Phe	1045	1050	1055	
Trp	Gly	Thr	Ile	Cys	Asp	Asp	Gly	Trp	Asp	Leu	Ser	Asp	Ala	His	Val	1060	1065	1070	
Val	Cys	Gln	Lys	Leu	Gly	Cys	Gly	Val	Ala	Phe	Asn	Ala	Thr	Val	Ser	1075	1080	1085	
Ala	His	Phe	Gly	Glu	Gly	Ser	Gly	Pro	Ile	Trp	Leu	Asp	Asp	Leu	Asn	1090	1095	1100	
Cys	Thr	Gly	Thr	Glu	Ser	His	Leu	Trp	Gln	Cys	Pro	Ser	Arg	Gly	Trp	1105	1110	1115	1120
Gly	Gln	His	Asp	Cys	Arg	His	Lys	Glu	Asp	Ala	Gly	Val	Ile	Cys	Ser	1125	1130	1135	
Glu	Phe	Thr	Ala	Leu	Arg	Leu	Tyr	Ser	Glu	Thr	Glu	Thr	Glu	Ser	Cys	1140	1145	1150	
Ala	Gly	Arg	Leu	Glu	Val	Phe	Tyr	Asn	Gly	Thr	Trp	Gly	Ser	Val	Gly	1155	1160	1165	
Arg	Arg	Asn	Ile	Thr	Thr	Ala	Ile	Ala	Gly	Ile	Val	Cys	Arg	Gln	Leu	1170	1175	1180	
Gly	Cys	Gly	Glu	Asn	Gly	Val	Val	Ser	Leu	Ala	Pro	Leu	Ser	Lys	Thr	1185	1190	1195	1200

Gly	Ser	Gly	Phe	Met	Trp	Val	Asp	Asp	Ile	Gln	Cys	Pro	Lys	Thr	His
				1205					1210					1215	
Ile	Ser	Ile	Trp	Gln	Cys	Leu	Ser	Ala	Pro	Trp	Glu	Arg	Arg	Ile	Ser
				1220					1225					1230	
Ser	Pro	Ala	Glu	Glu	Thr	Trp	Ile	Thr	Cys	Glu	Asp	Arg	Ile	Arg	Val
				1235					1240					1245	
Arg	Gly	Gly	Asp	Thr	Glu	Cys	Ser	Gly	Arg	Val	Glu	Ile	Trp	His	Ala
				1250					1255					1260	
Gly	Ser	Trp	Gly	Thr	Val	Cys	Asp	Asp	Ser	Trp	Asp	Leu	Ala	Glu	Ala
				1265					1270					1275	
Glu	Val	Val	Cys	Gln	Gln	Leu	Gly	Cys	Gly	Ser	Ala	Leu	Ala	Ala	Leu
				1285					1290					1295	
Arg	Asp	Ala	Ser	Phe	Gly	Gln	Gly	Thr	Gly	Thr	Ile	Trp	Leu	Asp	Asp
				1300					1305					1310	
Met	Arg	Cys	Lys	Gly	Asn	Glu	Ser	Phe	Leu	Trp	Asp	Cys	His	Ala	Lys
				1315					1320					1325	
Pro	Trp	Gly	Gln	Ser	Asp	Cys	Gly	His	Lys	Glu	Asp	Ala	Gly	Val	Arg
				1330					1335					1340	
Cys	Ser	Gly	Gln	Ser	Leu	Lys	Ser	Leu	Asn	Ala	Ser	Ser	Gly	His	Leu
				1345					1350					1355	
Ala	Leu	Ile	Leu	Ser	Ser	Ile	Phe	Gly	Leu	Leu	Leu	Leu	Val	Leu	Phe
				1365					1370					1375	
Ile	Leu	Phe	Leu	Thr	Trp	Cys	Arg	Val	Gln	Lys	Gln	Lys	His	Leu	Pro
				1380					1385					1390	
Leu	Arg	Val	Ser	Thr	Arg	Arg	Arg	Gly	Ser	Leu	Glu	Glu	Asn	Leu	Phe
				1395					1400					1405	
His	Glu	Met	Glu	Thr	Cys	Leu	Lys	Arg	Glu	Asp	Pro	His	Gly	Thr	Arg
				1410					1415					1420	
Thr	Ser	Asp	Asp	Thr	Pro	Asn	His	Gly	Cys	Glu	Asp	Ala	Ser	Asp	Thr
				1425					1430					1435	
Ser	Leu	Leu	Gly	Val	Leu	Pro	Ala	Ser	Glu	Ala	Thr	Lys			
				1445					1450						

1205 1210 1215 1220 1225 1230 1235 1240 1245 1250 1255 1260 1265 1270 1275 1280 1285 1290 1295 1300 1305 1310 1315 1320 1325 1330 1335 1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450

<210> 382
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 382
 Met Met Leu Pro Gln Asn Ser Trp His Ile Asp Phe Gly Arg Cys Cys
 1 5 10 15
 Cys His Gln Asn Leu Phe Ser Ala Val Val Thr Cys Ile Leu Leu Leu
 20 25 30
 Asn Ser Cys Phe Leu Ile Ser Ser
 35 40

<210> 383
 <211> 1413
 <212> PRT
 <213> Homo sapiens

<400> 383
 Phe Asn Gly Thr Asp Leu Glu Leu Arg Leu Val Asn Gly Asp Gly Pro
 1 5 10 15
 Cys Ser Gly Thr Val Glu Val Lys Phe Gln Gly Gln Trp Gly Thr Val
 20 25 30
 Cys Asp Asp Gly Trp Asn Thr Thr Ala Ser Thr Val Val Cys Lys Gln
 35 40 45
 Leu Gly Cys Pro Phe Ser Phe Ala Met Phe Arg Phe Gly Gln Ala Val
 50 55 60
 Thr Arg His Gly Lys Ile Trp Leu Asp Asp Val Ser Cys Tyr Gly Asn
 65 70 75 80
 Glu Ser Ala Leu Trp Glu Cys Gln His Arg Glu Trp Gly Ser His Asn
 85 90 95
 Cys Tyr His Gly Glu Asp Val Gly Val Asn Cys Tyr Gly Glu Ala Asn
 100 105 110
 Leu Gly Leu Arg Leu Val Asp Gly Asn Asn Ser Cys Ser Gly Arg Val
 115 120 125
 Glu Val Lys Phe Gln Glu Arg Trp Gly Thr Ile Cys Asp Asp Gly Trp

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130		135		140
Asn Leu Asn Thr Ala Ala Val Val Cys Arg Gln Leu Gly Cys Pro Ser				
145		150		155
				160
Ser Phe Ile Ser Ser Gly Val Val Asn Ser Pro Ala Val Leu Arg Pro				
	165		170	175
Ile Trp Leu Asp Asp Ile Leu Cys Gln Gly Asn Glu Leu Ala Leu Trp				
	180		185	190
Asn Cys Arg His Arg Gly Trp Gly Asn His Asp Cys Ser His Asn Glu				
	195		200	205
Asp Val Thr Leu Thr Cys Tyr Asp Ser Ser Asp Leu Glu Leu Arg Leu				
	210		215	220
Val Gly Gly Thr Asn Arg Cys Met Gly Arg Val Glu Leu Lys Ile Gln				
225		230		235
				240
Gly Arg Trp Gly Thr Val Cys His His Lys Trp Asn Asn Ala Ala Ala				
	245		250	255
Asp Val Val Cys Lys Gln Leu Gly Cys Gly Thr Ala Leu His Phe Ala				
	260		265	270
Gly Leu Pro His Leu Gln Ser Gly Ser Asp Val Val Trp Leu Asp Gly				
	275		280	285
Val Ser Cys Ser Gly Asn Glu Ser Phe Leu Trp Asp Cys Arg His Ser				
	290		295	300
Gly Thr Val Asn Phe Asp Cys Leu His Gln Asn Asp Val Ser Val Ile				
305		310		315
				320
Cys Ser Asp Gly Ala Asp Leu Glu Leu Arg Leu Ala Asp Gly Ser Asn				
	325		330	335
Asn Cys Ser Gly Arg Val Glu Val Arg Ile His Glu Gln Trp Trp Thr				
	340		345	350
Ile Cys Asp Gln Asn Trp Lys Asn Glu Gln Ala Leu Val Val Cys Lys				
	355		360	365
Gln Leu Gly Cys Pro Phe Ser Val Phe Gly Ser Arg Arg Ala Lys Pro				
	370		375	380
Ser Asn Glu Ala Arg Asp Ile Trp Ile Asn Ser Ile Ser Cys Thr Gly				

385 390 395 400
 Asn Glu Ser Ala Leu Trp Asp Cys Thr Tyr Asp Gly Lys Ala Lys Arg
 405 410 415
 Thr Cys Phe Arg Arg Ser Asp Ala Gly Val Ile Cys Ser Asp Lys Ala
 420 425 430
 Asp Leu Asp Leu Arg Leu Val Gly Ala His Ser Pro Cys Tyr Gly Arg
 435 440 445
 Leu Glu Val Lys Tyr Gln Gly Glu Trp Gly Thr Val Cys His Asp Arg
 450 455 460
 Trp Ser Thr Arg Asn Ala Ala Val Val Cys Lys Gln Leu Gly Cys Gly
 465 470 475 480
 Lys Pro Met His Val Phe Gly Met Thr Tyr Phe Lys Glu Ala Ser Gly
 485 490 495
 Pro Ile Trp Leu Asp Asp Val Ser Cys Ile Gly Asn Glu Ser Asn Ile
 500 505 510
 Trp Asp Cys Glu His Ser Gly Trp Gly Lys His Asn Cys Val His Arg
 515 520 525
 Glu Asp Val Ile Val Thr Cys Ser Gly Asp Ala Thr Trp Gly Leu Arg
 530 535 540
 Leu Val Gly Gly Ser Asn Arg Cys Ser Gly Arg Leu Glu Val Tyr Phe
 545 550 555 560
 Gln Gly Arg Trp Gly Thr Val Cys Asp Asp Gly Trp Asn Ser Lys Ala
 565 570 575
 Ala Ala Val Val Cys Ser Gln Leu Asp Cys Pro Ser Ser Ile Ile Gly
 580 585 590
 Met Gly Leu Gly Asn Ala Ser Thr Gly Tyr Gly Lys Ile Trp Leu Asp
 595 600 605
 Asp Val Ser Cys Asp Gly Asp Glu Ser Asp Leu Trp Ser Cys Arg Asn
 610 615 620
 Ser Gly Trp Gly Asn Asn Asp Cys Ser His Ser Glu Asp Val Gly Val
 625 630 635 640
 Ile Cys Ser Asp Ala Ser Asp Met Glu Leu Arg Leu Val Gly Gly Ser

	645		650		655
Ser Arg Cys Ala Gly Lys Val Glu Val Asn Val Gln Gly Ala Val Gly	660		665		670
Ile Leu Cys Ala Asn Gly Trp Gly Met Asn Ile Ala Glu Val Val Cys	675		680		685
Arg Gln Leu Glu Cys Gly Ser Ala Ile Arg Val Ser Arg Glu Pro His	690		695		700
Phe Thr Glu Arg Thr Leu His Ile Leu Met Ser Asn Ser Gly Cys Thr	705		710		715
Gly Gly Glu Ala Ser Leu Trp Asp Cys Ile Arg Trp Glu Trp Lys Gln	725		730		735
Thr Ala Cys His Leu Asn Met Glu Ala Ser Leu Ile Cys Ser Ala His	740		745		750
Arg Gln Pro Arg Leu Val Gly Ala Asp Met Pro Cys Ser Gly Arg Val	755		760		765
Glu Val Lys His Ala Asp Thr Trp Arg Ser Val Cys Asp Ser Asp Phe	770		775		780
Ser Leu His Ala Ala Asn Val Leu Cys Arg Glu Leu Asn Cys Gly Asp	785		790		795
Ala Ile Ser Leu Ser Val Gly Asp His Phe Gly Lys Gly Asn Gly Leu	805		810		815
Thr Trp Ala Glu Lys Phe Gln Cys Glu Gly Ser Glu Thr His Leu Ala	820		825		830
Leu Cys Pro Ile Val Gln His Pro Glu Asp Thr Cys Ile His Ser Arg	835		840		845
Glu Val Gly Val Val Cys Ser Arg Tyr Thr Asp Val Arg Leu Val Asn	850		855		860
Gly Lys Ser Gln Cys Asp Gly Gln Val Glu Ile Asn Val Leu Gly His	865		870		875
Trp Gly Ser Leu Cys Asp Thr His Trp Asp Pro Glu Asp Ala Arg Val	885		890		895
Leu Cys Arg Gln Leu Ser Cys Gly Thr Ala Leu Ser Thr Thr Gly Gly					

Asp Ile Gln Cys Pro Lys Thr His Ile Ser Ile Trp Gln Cys Leu Ser		
1170	1175	1180
Ala Pro Trp Glu Arg Arg Ile Ser Ser Pro Ala Glu Glu Thr Trp Ile		
1185	1190	1195 1200
Thr Cys Glu Asp Arg Ile Arg Val Arg Gly Gly Asp Thr Glu Cys Ser		
	1205	1210 1215
Gly Arg Val Glu Ile Trp His Ala Gly Ser Trp Gly Thr Val Cys Asp		
	1220	1225 1230
Asp Ser Trp Asp Leu Ala Glu Ala Glu Val Val Cys Gln Gln Leu Gly		
	1235	1240 1245
Cys Gly Ser Ala Leu Ala Ala Leu Arg Asp Ala Ser Phe Gly Gln Gly		
	1250	1255 1260
Thr Gly Thr Ile Trp Leu Asp Asp Met Arg Cys Lys Gly Asn Glu Ser		
1265	1270	1275 1280
Phe Leu Trp Asp Cys His Ala Lys Pro Trp Gly Gln Ser Asp Cys Gly		
	1285	1290 1295
His Lys Glu Asp Ala Gly Val Arg Cys Ser Gly Gln Ser Leu Lys Ser		
	1300	1305 1310
Leu Asn Ala Ser Ser Gly His Leu Ala Leu Ile Leu Ser Ser Ile Phe		
	1315	1320 1325
Gly Leu Leu Leu Leu Val Leu Phe Ile Leu Phe Leu Thr Trp Cys Arg		
	1330	1335 1340
Val Gln Lys Gln Lys His Leu Pro Leu Arg Val Ser Thr Arg Arg Arg		
1345	1350	1355 1360
Gly Ser Leu Glu Glu Asn Leu Phe His Glu Met Glu Thr Cys Leu Lys		
	1365	1370 1375
Arg Glu Asp Pro His Gly Thr Arg Thr Ser Asp Asp Thr Pro Asn His		
	1380	1385 1390
Gly Cys Glu Asp Ala Ser Asp Thr Ser Leu Leu Gly Val Leu Pro Ala		
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Ser Glu Ala Thr Lys		

1410

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<212> PRT
<213> Homo sapiens

<400> 384

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Cys Asp Asp Gly Trp Asn Thr Thr Ala Ser Thr Val Val Cys Lys Gln
35 40 45

Leu Gly Cys Pro Phe Ser Phe Ala Met Phe Arg Phe Gly Gln Ala Val
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Thr Arg His Gly Lys Ile Trp Leu Asp Asp Val Ser Cys Tyr Gly Asn
65 70 75 80

Glu Ser Ala Leu Trp Glu Cys Gln His Arg Glu Trp Gly Ser His Asn
85 90 95

Cys Tyr His Gly Glu Asp Val Gly Val Asn Cys Tyr Gly Glu Ala Asn
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Leu Gly Leu Arg Leu Val Asp Gly Asn Asn Ser Cys Ser Gly Arg Val
115 120 125

Glu Val Lys Phe Gln Glu Arg Trp Gly Thr Ile Cys Asp Asp Gly Trp
130 135 140

Asn Leu Asn Thr Ala Ala Val Val Cys Arg Gln Leu Gly Cys Pro Ser
145 150 155 160

Ser Phe Ile Ser Ser Gly Val Val Asn Ser Pro Ala Val Leu Arg Pro
165 170 175

Ile Trp Leu Asp Asp Ile Leu Cys Gln Gly Asn Glu Leu Ala Leu Trp
180 185 190

Asn Cys Arg His Arg Gly Trp Gly Asn His Asp Cys Ser His Asn Glu
195 200 205

Asp Val Thr Leu Thr Cys Tyr Asp Ser Ser Asp Leu Glu Leu Arg Leu
210 215 220

Val Gly Gly Thr Asn Arg Cys Met Gly Arg Val Glu Leu Lys Ile Gln
225 230 235 240

Gly Arg Trp Gly Thr Val Cys His His Lys Trp Asn Asn Ala Ala Ala
245 250 255

Asp Val Val Cys Lys Gln Leu Gly Cys Gly Thr Ala Leu His Phe Ala
260 265 270

Gly Leu Pro His Leu Gln Ser Gly Ser Asp Val Val Trp Leu Asp Gly
275 280 285

Val Ser Cys Ser Gly Asn Glu Ser Phe Leu Trp Asp Cys Arg His Ser
290 295 300

Gly Thr Val Asn Phe Asp Cys Leu His Gln Asn Asp Val Ser Val Ile
305 310 315 320

Cys Ser Asp Gly Ala Asp Leu Glu Leu Arg Leu Ala Asp Gly Ser Asn
325 330 335

Asn Cys Ser Gly Arg Val Glu Val Arg Ile His Glu Gln Trp Trp Thr
340 345 350

Ile Cys Asp Gln Asn Trp Lys Asn Glu Gln Ala Leu Val Val Cys Lys
355 360 365

Gln Leu Gly Cys Pro Phe Ser Val Phe Gly Ser Arg Arg Ala Lys Pro
370 375 380

Ser Asn Glu Ala Arg Asp Ile Trp Ile Asn Ser Ile Ser Cys Thr Gly
385 390 395 400

Asn Glu Ser Ala Leu Trp Asp Cys Thr Tyr Asp Gly Lys Ala Lys Arg
405 410 415

Thr Cys Phe Arg Arg Ser Asp Ala Gly Val Ile Cys Ser Asp Lys Ala
420 425 430

Asp Leu Asp Leu Arg Leu Val Gly Ala His Ser Pro Cys Tyr Gly Arg
435 440 445

Leu Glu Val Lys Tyr Gln Gly Glu Trp Gly Thr Val Cys His Asp Arg
450 455 460

Trp Ser Thr Arg Asn Ala Ala Val Val Cys Lys Gln Leu Gly Cys Gly
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Lys Pro Met His Val Phe Gly Met Thr Tyr Phe Lys Glu Ala Ser Gly
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Pro Ile Trp Leu Asp Asp Val Ser Cys Ile Gly Asn Glu Ser Asn Ile
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Trp Asp Cys Glu His Ser Gly Trp Gly Lys His Asn Cys Val His Arg
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Glu Asp Val Ile Val Thr Cys Ser Gly Asp Ala Thr Trp Gly Leu Arg
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Leu Val Gly Gly Ser Asn Arg Cys Ser Gly Arg Leu Glu Val Tyr Phe
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Gln Gly Arg Trp Gly Thr Val Cys Asp Asp Gly Trp Asn Ser Lys Ala
565 570 575

Ala Ala Val Val Cys Ser Gln Leu Asp Cys Pro Ser Ser Ile Ile Gly
580 585 590

Met Gly Leu Gly Asn Ala Ser Thr Gly Tyr Gly Lys Ile Trp Leu Asp
595 600 605

Asp Val Ser Cys Asp Gly Asp Glu Ser Asp Leu Trp Ser Cys Arg Asn
610 615 620

Ser Gly Trp Gly Asn Asn Asp Cys Ser His Ser Glu Asp Val Gly Val
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Ile Cys Ser Asp Ala Ser Asp Met Glu Leu Arg Leu Val Gly Gly Ser
645 650 655

Ser Arg Cys Ala Gly Lys Val Glu Val Asn Val Gln Gly Ala Val Gly
660 665 670

Ile Leu Cys Ala Asn Gly Trp Gly Met Asn Ile Ala Glu Val Val Cys
675 680 685

Arg Gln Leu Glu Cys Gly Ser Ala Ile Arg Val Ser Arg Glu Pro His
690 695 700

Phe Thr Glu Arg Thr Leu His Ile Leu Met Ser Asn Ser Gly Cys Thr
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Gly	Gly	Glu	Ala	Ser	Leu	Trp	Asp	Cys	Ile	Arg	Trp	Glu	Trp	Lys	Gln	725	730	735
Thr	Ala	Cys	His	Leu	Asn	Met	Glu	Ala	Ser	Leu	Ile	Cys	Ser	Ala	His	740	745	750
Arg	Gln	Pro	Arg	Leu	Val	Gly	Ala	Asp	Met	Pro	Cys	Ser	Gly	Arg	Val	755	760	765
Glu	Val	Lys	His	Ala	Asp	Thr	Trp	Arg	Ser	Val	Cys	Asp	Ser	Asp	Phe	770	775	780
Ser	Leu	His	Ala	Ala	Asn	Val	Leu	Cys	Arg	Glu	Leu	Asn	Cys	Gly	Asp	785	790	795
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Thr	Trp	Ala	Glu	Lys	Phe	Gln	Cys	Glu	Gly	Ser	Glu	Thr	His	Leu	Ala	820	825	830
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Gly	Lys	Ser	Gln	Cys	Asp	Gly	Gln	Val	Glu	Ile	Asn	Val	Leu	Gly	His	865	870	875
Trp	Gly	Ser	Leu	Cys	Asp	Thr	His	Trp	Asp	Pro	Glu	Asp	Ala	Arg	Val	885	890	895
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Lys	Tyr	Ile	Gly	Glu	Arg	Ser	Val	Arg	Val	Trp	Gly	His	Arg	Phe	His	915	920	925
Cys	Leu	Gly	Asn	Glu	Ser	Leu	Leu	Asp	Asn	Cys	Gln	Met	Thr	Val	Leu	930	935	940
Gly	Ala	Pro	Pro	Cys	Ile	His	Gly	Asn	Thr	Val	Ser	Val	Ile	Cys	Thr	945	950	955
Gly	Ser	Leu	Thr	Gln	Pro	Leu	Phe	Pro	Cys	Leu	Ala	Asn	Val	Ser	Asp	965	970	975

Pro Tyr Leu Ser Ala Val Pro Glu Gly Ser Ala Leu Ile Cys Leu Glu
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Asp Lys Arg Leu Arg Leu Val Asp Gly Asp Ser Arg Cys Ala Gly Arg
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Val Glu Ile Tyr His Asp Gly Phe Trp Gly Thr Ile Cys Asp Asp Gly
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Trp Asp Leu Ser Asp Ala His Val Val Cys Gln Lys Leu Gly Cys Gly
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Val Ala Phe Asn Ala Thr Val Ser Ala His Phe Gly Glu Gly Ser Gly
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Pro Ile Trp Leu Asp Asp Leu Asn Cys Thr Gly Thr Glu Ser His Leu
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Trp Gln Cys Pro Ser Arg Gly Trp Gly Gln His Asp Cys Arg His Lys
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Glu Asp Ala Gly Val Ile Cys Ser Glu Phe Thr Ala Leu Arg Leu Tyr
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Ser Glu Thr Glu Thr Glu Ser Cys Ala Gly Arg Leu Glu Val Phe Tyr
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Asn Gly Thr Trp Gly Ser Val Gly Arg Arg Asn Ile Thr Thr Ala Ile
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Ala Gly Ile Val Cys Arg Gln Leu Gly Cys Gly Glu Asn Gly Val Val
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Ser Leu Ala Pro Leu Ser Lys Thr Gly Ser Gly Phe Met Trp Val Asp
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Asp Ile Gln Cys Pro Lys Thr His Ile Ser Ile Trp Gln Cys Leu Ser
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Ala Pro Trp Glu Arg Arg Ile Ser Ser Pro Ala Glu Glu Thr Trp Ile
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Thr Cys Glu Asp Arg Ile Arg Val Arg Gly Gly Asp Thr Glu Cys Ser
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Gly Arg Val Glu Ile Trp His Ala Gly Ser Trp Gly Thr Val Cys Asp
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Cys Gly Ser Ala Leu Ala Ala Leu Arg Asp Ala Ser Phe Gly Gln Gly
 1250 1255 1260

Thr Gly Thr Ile Trp Leu Asp Asp Met Arg Cys Lys Gly Asn Glu Ser
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Phe Leu Trp Asp Cys His Ala Lys Pro Trp Gly Gln Ser Asp Cys Gly
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His Lys Glu Asp Ala Gly Val Arg Cys Ser Gly Gln Ser Leu Lys Ser
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Leu Asn Ala Ser Ser Gly His
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<211> 24

<212> PRT

<213> Homo sapiens

<400> 385

Leu Ala Leu Ile Leu Ser Ser Ile Phe Gly Leu Leu Leu Leu Val Leu
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<210> 386

<211> 70

<212> PRT

<213> Homo sapiens

<400> 386

Arg Val Gln Lys Gln Lys His Leu Pro Leu Arg Val Ser Thr Arg Arg
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Lys Arg Glu Asp Pro His Gly Thr Arg Thr Ser Asp Asp Thr Pro Asn
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His Gly Cys Glu Asp Ala Ser Asp Thr Ser Leu Leu Gly Val Leu Pro

Ala Ser Glu Ala Thr Lys

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<210> 387

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<211> 761

<212> PRT

<213> Homo sapiens ;

<400> 389

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Phe Leu Phe Gln Leu Leu Gln Leu Leu Leu Pro Thr Thr Thr Ala Gly
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Gly Gly Gly Gln Gly Pro Met Pro Arg Val Arg Tyr Tyr Ala Gly Asp
 35 40 45

Glu Arg Arg Ala Leu Ser Phe Phe His Gln Lys Gly Leu Gln Asp Phe
 50 55 60

Asp Thr Leu Leu Leu Ser Gly Asp Gly Asn Thr Leu Tyr Val Gly Ala
 65 70 75 80

Arg Glu Ala Ile Leu Ala Leu Asp Ile Gln Asp Pro Gly Val Pro Arg
 85 90 95

Leu Lys Asn Met Ile Pro Trp Pro Ala Ser Asp Arg Lys Lys Ser Glu
 100 105 110

Cys Ala Phe Lys Lys Lys Ser Asn Glu Thr Gln Cys Phe Asn Phe Ile
 115 120 125

Arg Val Leu Val Ser Tyr Asn Val Thr His Leu Tyr Thr Cys Gly Thr

	645		650		655
Pro Arg Glu His Val Lys Val Pro Leu Thr Arg Val Ser Gly Gly Ala	660		665		670
Ala Leu Ala Ala Gln Gln Ser Tyr Trp Pro His Phe Val Thr Val Thr	675		680		685
Val Leu Phe Ala Leu Val Leu Ser Gly Ala Leu Ile Ile Leu Val Ala	690		695		700
Ser Pro Leu Arg Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Glu	705		710		715
Thr Leu Arg Pro Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu	725		730		735
Gln Ser Pro Lys Glu Cys Arg Thr Ser Ala Ser Asp Val Asp Ala Asp	740		745		750
Asn Asn Cys Leu Gly Thr Glu Val Ala	755		760		
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Phe Leu Phe Gln Leu Leu Gln Leu Leu Leu Pro Thr Thr Thr Ala	20		25		30
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<400> 391					
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Asp Glu Arg Arg Ala Leu Ser Phe Phe His Gln Lys Gly Leu Gln Asp	20		25		30

Phe	Asp	Thr	Leu	Leu	Leu	Ser	Gly	Asp	Gly	Asn	Thr	Leu	Tyr	Val	Gly			
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Ala	Arg	Glu	Ala	Ile	Leu	Ala	Leu	Asp	Ile	Gln	Asp	Pro	Gly	Val	Pro			
		50				55					60							
Arg	Leu	Lys	Asn	Met	Ile	Pro	Trp	Pro	Ala	Ser	Asp	Arg	Lys	Lys	Ser			
	65				70					75					80			
Glu	Cys	Ala	Phe	Lys	Lys	Lys	Ser	Asn	Glu	Thr	Gln	Cys	Phe	Asn	Phe			
				85					90					95				
Ile	Arg	Val	Leu	Val	Ser	Tyr	Asn	Val	Thr	His	Leu	Tyr	Thr	Cys	Gly			
			100					105						110				
Thr	Phe	Ala	Phe	Ser	Pro	Ala	Cys	Thr	Phe	Ile	Glu	Leu	Gln	Asp	Ser			
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Tyr	Leu	Leu	Pro	Ile	Ser	Glu	Asp	Lys	Val	Met	Glu	Gly	Lys	Gly	Gln			
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Ser	Pro	Phe	Asp	Pro	Ala	His	Lys	His	Thr	Ala	Val	Leu	Val	Asp	Gly			
	145				150					155					160			
Met	Leu	Tyr	Ser	Gly	Thr	Met	Asn	Asn	Phe	Leu	Gly	Ser	Glu	Pro	Ile			
				165					170					175				
Leu	Met	Arg	Thr	Leu	Gly	Ser	Gln	Pro	Val	Leu	Lys	Thr	Asp	Asn	Phe			
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Leu	Arg	Trp	Leu	His	His	Asp	Ala	Ser	Phe	Val	Ala	Ala	Ile	Pro	Ser			
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				245					250					255				
Lys	Ala	Gln	Leu	Leu	Cys	Thr	Gln	Pro	Gly	Gln	Leu	Pro	Phe	Asn	Val			
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Ile	Arg	His	Ala	Val	Leu	Leu	Pro	Ala	Asp	Ser	Pro	Thr	Ala	Pro	His			
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275		280		285
Ile Tyr Ala Val Phe Thr Ser Gln Trp Gln Val Gly Gly Thr Arg Ser				
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Ser Ala Val Cys Ala Phe Ser Leu Leu Asp Ile Glu Arg Val Phe Lys				
305		310		315
Gly Lys Tyr Lys Glu Leu Asn Lys Glu Thr Ser Arg Trp Thr Thr Tyr				
	325		330	335
Arg Gly Pro Glu Thr Asn Pro Arg Pro Gly Ser Cys Ser Val Gly Pro				
	340		345	350
Ser Ser Asp Lys Ala Leu Thr Phe Met Lys Asp His Phe Leu Met Asp				
	355		360	365
Glu Gln Val Val Gly Thr Pro Leu Leu Val Lys Ser Gly Val Glu Tyr				
	370		375	380
Thr Arg Leu Ala Val Glu Thr Ala Gln Gly Leu Asp Gly His Ser His				
385		390		395
Leu Val Met Tyr Leu Gly Thr Thr Thr Gly Ser Leu His Lys Ala Val				
	405		410	415
Val Ser Gly Asp Ser Ser Ala His Leu Val Glu Glu Ile Gln Leu Phe				
	420		425	430
Pro Asp Pro Glu Pro Val Arg Asn Leu Gln Leu Ala Pro Thr Gln Gly				
	435		440	445
Ala Val Phe Val Gly Phe Ser Gly Gly Val Trp Arg Val Pro Arg Ala				
450		455		460
Asn Cys Ser Val Tyr Glu Ser Cys Val Asp Cys Val Leu Ala Arg Asp				
465		470		475
Pro His Cys Ala Trp Asp Pro Glu Ser Arg Thr Cys Cys Leu Leu Ser				
	485		490	495
Ala Pro Asn Leu Asn Ser Trp Lys Gln Asp Met Glu Arg Gly Asn Pro				
	500		505	510
Glu Trp Ala Cys Ala Ser Gly Pro Met Ser Arg Ser Leu Arg Pro Gln				
515		520		525
Ser Arg Pro Gln Ile Ile Lys Glu Val Leu Ala Val Pro Asn Ser Ile				

530	535	540
Leu Glu Leu Pro Cys Pro His Leu Ser Ala Leu Ala Ser Tyr Tyr Trp		
545	550	555 560
Ser His Gly Pro Ala Ala Val Pro Glu Ala Ser Ser Thr Val Tyr Asn		
	565	570 575
Gly Ser Leu Leu Leu Ile Val Gln Asp Gly Val Gly Gly Leu Tyr Gln		
	580	585 590
Cys Trp Ala Thr Glu Asn Gly Phe Ser Tyr Pro Val Ile Ser Tyr Trp		
	595	600 605
Val Asp Ser Gln Asp Gln Thr Leu Ala Leu Asp Pro Glu Leu Ala Gly		
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Ile Pro Arg Glu His Val Lys Val Pro Leu Thr Arg Val Ser Gly Gly		
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Ser Pro Leu Arg Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Glu		
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Thr Leu Arg Pro Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu		
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<210> 403
 <211> 1980
 <212> DNA
 <213> Homo sapiens

<400> 403

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 <213> Homo sapiens

<400> 404

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Asn Ile Ser Thr Asp Trp Gly Phe Glu Ser Pro Leu Phe Val Leu Tyr
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Asn Ser Phe Ala Glu Pro Met Glu Lys Pro Ile Leu Lys Asn Leu Asn
 130 135 140

Glu Met Leu Cys Pro Ile Ile Ala Ser Glu Val Lys Ala Leu Asn Ala
 145 150 155 160

Asn Leu Ser Thr Leu Glu Val Leu Thr Lys Ile Asp Asn Tyr Thr Leu
 165 170 175

Leu Asp Tyr Ser Leu Ile Ser Ser Pro Glu Ile Thr Glu Asn Tyr Leu
 180 185 190

Asp Leu Asn Leu Lys Gly Val Phe Tyr Pro Leu Glu Asn Leu Thr Asp
 195 200 205

Pro Pro Phe Ser Pro Val Pro Phe Val Leu Pro Glu Arg Ser Asn Ser
 210 215 220

Met Leu Tyr Ile Gly Ile Ala Glu Tyr Phe Phe Lys Ser Ala Ser Phe
 225 230 235 240

Ala His Phe Thr Ala Gly Val Phe Asn Leu Thr Leu Ser Thr Glu Glu
 245 250 255

Ile Ser Asn His Phe Val Gln Asn Ser Gln Gly Leu Gly Asn Val Leu
 260 265 270

Ser Arg Ile Ala Glu Ile Tyr Ile Leu Ser Gln Pro Phe Met Val Arg
 275 280 285

Ile Met Ala Thr Glu Pro Pro Ile Ile Asn Leu Gln Pro Gly Asn Phe
 290 295 300

Thr Leu Asp Ile Pro Ala Ser Ile Met Met Leu Thr Gln Pro Lys Asn
 305 310 315 320

Ser Thr Val Glu Thr Ile Val Ser Met Asp Phe Val Ala Ser Thr Ser
 325 330 335

Val Gly Leu Val Ile Leu Gly Gln Arg Leu Val Cys Ser Leu Ser Leu
 340 345 350

Asn Arg Phe Arg Leu Ala Leu Pro Glu Ser Asn Arg Ser Asn Ile Glu
 355 360 365

Val Leu Arg Phe Glu Asn Ile Leu Ser Ser Ile Leu His Phe Gly Val
 370 375 380

Leu Pro Leu Ala Asn Ala Lys Leu Gln Gln Gly Phe Pro Leu Pro Asn
 385 390 395 400

Pro His Lys Phe Leu Phe Val Asn Ser Asp Ile Glu Val Leu Glu Gly
 405 410 415

Phe Leu Leu Ile Ser Thr Asp Leu Lys Tyr Glu Thr Ser Ser Lys Gln
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Gln Pro Ser Phe His Val Trp Glu Gly Leu Asn Leu Ile Ser Arg Gln
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Trp Arg Gly Lys Ser Ala Pro
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<210> 406

<211> 23

<212> PRT

<213> Homo sapiens

<400> 406

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Asn Leu Tyr Val Ser Ser Ser
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<210> 407

<211> 432

<212> PRT

<213> Homo sapiens

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Asp Tyr Gly Val Gln Ala Gly Met Lys Met Ile Glu Gln Met Leu Lys
 20 25 30

Glu Lys Lys Leu Pro Asp Leu Ser Gly Ser Glu Ser Leu Glu Phe Leu

290		295		300
Ser Met Asp Phe Val Ala Ser Thr Ser Val Gly Leu Val Ile Leu Gly				
305		310		315 320
Gln Arg Leu Val Cys Ser Leu Ser Leu Asn Arg Phe Arg Leu Ala Leu				
	325		330	335
Pro Glu Ser Asn Arg Ser Asn Ile Glu Val Leu Arg Phe Glu Asn Ile				
	340		345	350
Leu Ser Ser Ile Leu His Phe Gly Val Leu Pro Leu Ala Asn Ala Lys				
	355		360	365
Leu Gln Gln Gly Phe Pro Leu Pro Asn Pro His Lys Phe Leu Phe Val				
	370		375	380
Asn Ser Asp Ile Glu Val Leu Glu Gly Phe Leu Leu Ile Ser Thr Asp				
385		390		395 400
Leu Lys Tyr Glu Thr Ser Ser Lys Gln Gln Pro Ser Phe His Val Trp				
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Glu Gly Leu Asn Leu Ile Ser Arg Gln Trp Arg Gly Lys Ser Ala Pro				
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Val Val Arg Ile Ser Gln Lys Gly Leu Asp Tyr Ala Ser Gln Gln Gly				
	35		40	45
Thr Ala Ala Leu Gln Lys Glu Leu Lys Arg Ile Lys Ile Pro Asp Tyr				
	50		55	60

Ser	Asp	Ser	Phe	Lys	Ile	Lys	His	Leu	Gly	Lys	Gly	His	Tyr	Ser	Phe	65	70	75	80
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Met	Val	Pro	Asn	Val	Gly	Leu	Lys	Phe	Ser	Ile	Ser	Asn	Ala	Asn	Ile	100	105	110	
Lys	Ile	Ser	Gly	Lys	Trp	Lys	Ala	Gln	Lys	Arg	Phe	Leu	Lys	Met	Ser	115	120	125	
Gly	Asn	Phe	Asp	Leu	Ser	Ile	Glu	Gly	Met	Ser	Ile	Ser	Ala	Asp	Leu	130	135	140	
Lys	Leu	Gly	Ser	Asn	Pro	Thr	Ser	Gly	Lys	Pro	Thr	Ile	Thr	Cys	Ser	145	150	155	160
Ser	Cys	Ser	Ser	His	Ile	Asn	Ser	Val	His	Val	His	Ile	Ser	Lys	Ser	165	170	175	
Lys	Val	Gly	Trp	Leu	Ile	Gln	Leu	Phe	His	Lys	Lys	Ile	Glu	Ser	Ala	180	185	190	
Leu	Arg	Asn	Lys	Met	Asn	Ser	Gln	Val	Cys	Glu	Lys	Val	Thr	Asn	Ser	195	200	205	
Val	Ser	Ser	Lys	Leu	Gln	Pro	Tyr	Phe	Gln	Thr	Leu	Pro	Val	Met	Thr	210	215	220	
Lys	Ile	Asp	Ser	Val	Ala	Gly	Ile	Asn	Tyr	Gly	Leu	Val	Ala	Pro	Pro	225	230	235	240
Ala	Thr	Thr	Ala	Glu	Thr	Leu	Asp	Val	Gln	Met	Lys	Gly	Glu	Phe	Tyr	245	250	255	
Ser	Glu	Asn	His	His	Asn	Pro	Pro	Pro	Phe	Ala	Pro	Pro	Val	Met	Glu	260	265	270	
Phe	Pro	Ala	Ala	His	Asp	Arg	Met	Val	Tyr	Leu	Gly	Leu	Ser	Asp	Tyr	275	280	285	
Phe	Phe	Asn	Thr	Ala	Gly	Leu	Val	Tyr	Gln	Glu	Ala	Gly	Val	Leu	Lys	290	295	300	
Met	Thr	Leu	Arg	Asp	Asp	Met	Ile	Pro	Lys	Glu	Ser	Lys	Phe	Arg	Leu	305	310	315	320

Thr Thr Lys Phe Phe Gly Thr Phe Leu Pro Glu Val Ala Lys Lys Phe
 325 330 335

Pro Asn Met Lys Ile Gln Ile His Val Ser Ala Ser Thr Pro Pro His
 340 345 350

Leu Ser Val Gln Pro Thr Gly Leu Thr Phe Tyr Pro Ala Val Asp Val
 355 360 365

Gln Ala Phe Ala Val Leu Pro Asn Ser Ser Leu Ala Ser Leu Phe Leu
 370 375 380

Ile Gly Met His Thr Thr Gly Ser Met Glu Val Ser Ala Glu Ser Asn
 385 390 395 400

Arg Leu Val Gly Glu Leu Lys Leu Asp Arg Leu Leu Leu Glu Leu Lys
 405 410 415

His Ser Asn Ile Gly Pro Phe Pro Val Glu Leu Leu Gln Asp Ile Met
 420 425 430

Asn Tyr Ile Val Pro Ile Leu Val Leu Pro Arg Val Asn Glu Lys Leu
 435 440 445

Gln Lys Gly Phe Pro Leu Pro Thr Pro Ala Arg Val Gln Leu Tyr Asn
 450 455 460

Val Val Leu Gln Pro His Gln Asn Phe Leu Leu Phe Gly Ala Asp Val
 465 470 475 480

Val Tyr Lys

<210> 409

<211> 481

<212> PRT

<213> Homo sapiens

<400> 409

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Leu Thr Ser Thr Pro Glu Ala Leu Gly Ala Asn Pro Gly Leu Val Ala
 20 25 30

Arg Ile Thr Asp Lys Gly Leu Gln Tyr Ala Ala Gln Glu Gly Leu Leu
 35 40 45

Phe Asp Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys
 115 120 125

His Lys Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr
 130 135 140

Asp Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu
 145 150 155 160

Asn Lys Thr Gly Gln Glu Gln Val Tyr Tyr Val Gly His Ser Gln Gly
 165 170 175

Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu Ala Lys
 180 185 190

Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser Val Ala Phe
 195 200 205

Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro Asp His Leu Ile
 210 215 220

Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro Gln Ser Ala Phe Leu
 225 230 235 240

Lys Trp Leu Gly Thr His Val Cys Thr His Val Ile Leu Lys Glu Leu
 245 250 255

Cys Gly Asn Leu Cys Phe Leu Leu Cys Gly Phe Asn Glu Arg Asn Leu
 260 265 270

Asn Met Ser Arg Val Asp Val Tyr Thr Thr His Ser Pro Ala Gly Thr
 275 280 285

Ser Val Gln Asn Met Leu His Trp Ser Gln Ala Val Lys Phe Gln Lys
 290 295 300

Phe Gln Ala Phe Asp Trp Gly Ser Ser Ala Lys Asn Tyr Phe His Tyr
 305 310 315 320

Asn Gln Ser Tyr Pro Pro Thr Tyr Asn Val Lys Asp Met Leu Val Pro
 325 330 335

Thr Ala Val Trp Ser Gly Gly His Asp Trp Leu Ala Asp Val Tyr Asp
 340 345 350

Val Asn Ile Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His Glu Ser
 355 360 365

370

375

380

Ser Gln Gln Leu Ser Gln Arg Phe Phe Cys Met Ser His Leu Asn Leu
 385 390 395 400

Ile Glu Ser Leu His Gln Glu Thr Leu Gly Thr Val Val Ser Leu Gly
 405 410 415

Leu Leu Glu Ile Ser Gly Pro Phe Ser Met Asn Leu Pro Leu Gln Ser
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Pro Ser Leu Arg Arg Ser Ser Arg Val Arg Val Asn Lys Met Thr Ala
 435 440 445

Ile Pro Ser
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<210> 414

<211> 150

<212> PRT

<213> Homo sapiens

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Leu Ser Ile Gln Arg Leu Trp Tyr Phe Trp Phe Leu Leu Met Met Gly
 35 40 45

Val Leu Phe Cys Cys Gly Ala Gly Phe Phe Ile Arg Arg Arg Met Tyr
 50 55 60

Pro Pro Pro Leu Ile Glu Glu Pro Thr Phe Asn Val Ser Tyr Thr Arg
 65 70 75 80

Gln Pro Pro Asn Pro Ala Pro Gly Ala Gln Gln Met Gly Pro Pro Tyr
 85 90 95

Tyr Thr Asp Pro Gly Gly Pro Gly Met Asn Pro Val Gly Asn Thr Met
 100 105 110

Ala Met Ala Phe Gln Val Gln Pro Asn Ser Pro His Gly Gly Thr Thr
 115 120 125

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 <212> PRT
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<400> 417
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 Ser Val His Met Pro Thr Lys Ala Val Asp Pro Glu Ala Phe Met Asn
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 Ile Ser Glu Ile Ile Gln His Gln Gly Tyr Pro Cys Glu Glu Tyr Glu

305 310 315 320

Asp Trp Gly Ser Glu Thr Lys Asn Leu Glu Lys Cys Asn Gln Pro Thr
325 330 335

Pro Val Arg Tyr Arg Val Arg Asp Met Thr Val Pro Thr Ala Met Trp
340 345 350

Thr Gly Gly Gln Asp Trp Leu Ser Asn Pro Glu Asp Val Lys Met Leu
355 360 365

Leu Ser Glu Val Thr Asn Leu Ile Tyr His Lys Asn Ile Pro Glu Trp
370 375 380

Ala His Val Asp Phe Ile Trp Gly Leu Asp Ala Pro His Arg Met Tyr
385 390 395 400

Asn Glu Ile Ile His Leu Met Gln Gln Glu Glu Thr Asn Leu Ser Gln
405 410 415

Gly Arg Cys Glu Ala Val Leu
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<210> 418

<211> 33

<212> PRT

<213> Homo sapiens

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Ser

<210> 419

<211> 390

<212> PRT

<213> Homo sapiens

<400> 419

Val His Met Pro Thr Lys Ala Val Asp Pro Glu Ala Phe Met Asn Ile
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Ser Glu Ile Ile Gln His Gln Gly Tyr Pro Cys Glu Glu Tyr Glu Val
20 25 30

Ala Thr Glu Asp Gly Tyr Ile Leu Ser Val Asn Arg Ile Pro Arg Gly
35 40 45

Leu Val Gln Pro Lys Lys Thr Gly Ser Arg Pro Val Val Leu Leu Gln
50 55 60

His Gly Leu Val Gly Gly Ala Ser Asn Trp Ile Ser Asn Leu Pro Asn
65 70 75 80

Asn Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly Phe Asp Val Trp Met
85 90 95

Gly Asn Ser Arg Gly Asn Ala Trp Ser Arg Lys His Lys Thr Leu Ser
100 105 110

Ile Asp Gln Asp Glu Phe Trp Ala Phe Ser Tyr Asp Glu Met Ala Arg
115 120 125

Phe Asp Leu Pro Ala Val Ile Asn Phe Ile Leu Gln Lys Thr Gly Gln
130 135 140

Glu Lys Ile Tyr Tyr Val Gly Tyr Ser Gln Gly Thr Thr Met Gly Phe
145 150 155 160

Ile Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Lys Ile Lys Met Tyr
165 170 175

Phe Ala Leu Ala Pro Ile Ala Thr Val Lys His Ala Lys Ser Pro Gly
180 185 190

Thr Lys Phe Leu Leu Leu Pro Asp Met Met Ile Lys Gly Leu Phe Gly
195 200 205

Lys Lys Glu Phe Leu Tyr Gln Thr Arg Phe Leu Arg Gln Leu Val Ile
210 215 220

Tyr Leu Cys Gly Gln Val Ile Leu Asp Gln Ile Cys Ser Asn Ile Met
225 230 235 240

Leu Leu Leu Gly Gly Phe Asn Thr Asn Asn Met Asn Met Ser Arg Ala
245 250 255

Ser Val Tyr Ala Ala His Thr Leu Ala Gly Thr Ser Val Gln Asn Ile
260 265 270


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<210> 424

<211> 1029

<212> DNA

<213> Homo sapiens

<400> 424

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tgtgcttta

1029

<210> 425

<211> 343

<212> PRT

<213> Homo sapiens

<400> 425

Met Ala Thr Leu Gly His Thr Phe Pro Phe Tyr Ala Gly Pro Lys Pro
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Thr Phe Pro Met Asp Thr Thr Leu Ala Ser Ile Ile Met Ile Phe Leu
20 25 30

Thr Ala Leu Ala Thr Phe Ile Val Ile Leu Pro Gly Ile Arg Gly Lys
35 40 45

Thr Arg Leu Phe Trp Leu Leu Arg Val Val Thr Ser Leu Phe Ile Gly
50 55 60

Ala Ala Ile Leu Ala Val Asn Phe Ser Ser Glu Trp Ser Val Gly Gln
65 70 75 80

Val Ser Thr Asn Thr Ser Tyr Lys Ala Phe Ser Ser Glu Trp Ile Ser
85 90 95

Ala Asp Ile Gly Leu Gln Val Gly Leu Gly Gly Val Asn Ile Thr Leu
100 105 110

Thr Gly Thr Pro Val Gln Gln Leu Asn Glu Thr Ile Asn Tyr Asn Glu
115 120 125

Glu Phe Thr Trp Arg Leu Gly Glu Asn Tyr Ala Glu Glu Cys Ala Lys
130 135 140

Ala Leu Glu Lys Gly Leu Pro Asp Pro Val Leu Tyr Leu Ala Glu Lys
145 150 155 160

Phe Thr Pro Arg Ser Pro Cys Gly Leu Tyr Arg Gln Tyr Arg Leu Ala
165 170 175

Gly His Tyr Thr Ser Ala Met Leu Trp Val Ala Phe Leu Cys Trp Leu
180 185 190

Leu Ala Asn Val Met Leu Ser Met Pro Val Leu Val Tyr Gly Gly Tyr
195 200 205

1029

Met Leu Leu Ala Thr Gly Ile Phe Gln Leu Leu Ala Leu Leu Phe Phe
 210 215 220

Ser Met Ala Thr Ser Leu Thr Ser Pro Cys Pro Leu His Leu Gly Ala
 225 230 235 240

Ser Val Leu His Thr His His Gly Pro Ala Phe Trp Ile Thr Leu Thr
 245 250 255

Thr Gly Leu Leu Cys Val Leu Leu Gly Leu Ala Met Ala Val Ala His
 260 265 270

Arg Met Gln Pro His Arg Leu Lys Ala Phe Phe Asn Gln Ser Val Asp
 275 280 285

Glu Asp Pro Met Leu Glu Trp Ser Pro Glu Glu Gly Gly Leu Leu Ser
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Pro Arg Tyr Arg Ser Met Ala Asp Ser Pro Lys Ser Gln Asp Ile Pro
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Leu Ser Glu Ala Ser Ser Thr Lys Ala Tyr Cys Lys Glu Ala His Pro
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Lys Asp Pro Asp Cys Ala Leu
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<210> 426

<211> 23

<212> PRT

<213> Homo sapiens

<400> 426

Met Ala Thr Leu Gly His Thr Phe Pro Phe Tyr Ala Gly Pro Lys Pro
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<210> 427

<211> 112

<212> PRT

<213> Homo sapiens

<400> 427

Asn Phe Ser Ser Glu Trp Ser Val Gly Gln Val Ser Thr Asn Thr Ser

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20	25	30	
Val Gly Leu Gly Gly Val Asn Ile Thr Leu Thr Gly Thr Pro Val Gln			
35	40	45	
Gln Leu Asn Glu Thr Ile Asn Tyr Asn Glu Glu Phe Thr Trp Arg Leu			
50	55	60	
Gly Glu Asn Tyr Ala Glu Glu Cys Ala Lys Ala Leu Glu Lys Gly Leu			
65	70	75	80
Pro Asp Pro Val Leu Tyr Leu Ala Glu Lys Phe Thr Pro Arg Ser Pro			
85	90	95	
Cys Gly Leu Tyr Arg Gln Tyr Arg Leu Ala Gly His Tyr Thr Ser Ala			
100	105	110	

<210> 428

<211> 22

<212> PRT

<213> Homo sapiens

<400> 428

Thr Ser Leu Thr Ser Pro Cys Pro Leu His Leu Gly Ala Ser Val Leu
1 5 10 15

His Thr His His Gly Pro
20

<210> 429

<211> 19

<212> PRT

<213> Homo sapiens

<400> 429

Leu Ala Ser Ile Ile Met Ile Phe Leu Thr Ala Leu Ala Thr Phe Ile
1 5 10 15

Val Ile Leu

<210> 430
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 430
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 1 5 10 15
 Ile Leu Ala Val
 20

<210> 431
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 431
 Met Leu Trp Val Ala Phe Leu Cys Trp Leu Leu Ala Asn Val Met Leu
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 Ser Met Pro Val Leu Val
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<210> 432
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 432
 Leu Ala Thr Gly Ile Phe Gln Leu Leu Ala Leu Leu Phe Phe Ser Met
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 Ala

<210> 433
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 433
 Ala Phe Trp Ile Thr Leu Thr Thr Gly Leu Leu Cys Val Leu Leu Gly

1	5	10	15
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Leu Ala Met Ala Val Ala
20

<210> 434
<211> 8
<212> PRT
<213> Homo sapiens

<400> 434
Pro Gly Ile Arg Gly Lys Thr Arg
1 5

<210> 435
<211> 6
<212> PRT
<213> Homo sapiens

<400> 435
Tyr Gly Gly Tyr Met Leu
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<210> 436
<211> 72
<212> PRT
<213> Homo sapiens

<400> 436
His Arg Met Gln Pro His Arg Leu Lys Ala Phe Phe Asn Gln Ser Val
1 5 10 15

Asp Glu Asp Pro Met Leu Glu Trp Ser Pro Glu Glu Gly Gly Leu Leu
20 25 30

Ser Pro Arg Tyr Arg Ser Met Ala Asp Ser Pro Lys Ser Gln Asp Ile
35 40 45

Pro Leu Ser Glu Ala Ser Ser Thr Lys Ala Tyr Cys Lys Glu Ala His
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Pro Lys Asp Pro Asp Cys Ala Leu
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<210> 437
 <211> 4928
 <212> DNA
 <213> Mus sp.

<400> 437

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<400> 438

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<210> 439

<211> 470

<212> PRT

<213> Mus sp.

<400> 439

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Met Ala Pro Pro Ala Ala Arg Leu Ala Leu Leu Ser Ala Ala Ala Leu
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Thr Leu Ala Ala Arg Pro Ala Pro Gly Pro Arg Ser Gly Pro Glu Cys
      20              25             30

Phe Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Ser Trp Thr Ala
      35              40             45

Leu Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His
      50              55             60

Pro Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu Gly Glu
      65              70             75             80

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Ala Glu Val Ile Thr Glu Gln Ala Asn Leu Ser Val Ser Ala Ala His
340 345 350

Ser Ser Lys Val Leu Tyr Val Ile Thr Pro Ser Pro Ser His Pro Pro
355 360 365

Gln Thr Ala Gln Val Ala Ile Pro Gly His Arg Gln Leu Gly Pro Thr
370 375 380

Ala Thr Glu Trp Lys Asp Gly Leu Cys Thr Ala Trp Arg Pro Ser Ser
385 390 395 400

Ser Ser Gln Ser Gln Gln Leu Ser Gln Arg Phe Phe Cys Met Ser His
405 410 415

Leu Asn Leu Ile Glu Ser Leu His Gln Glu Thr Leu Gly Thr Val Val
420 425 430

Ser Leu Gly Leu Leu Glu Ile Ser Gly Pro Phe Ser Met Asn Leu Pro
435 440 445

Leu Gln Ser Pro Ser Leu Arg Arg Ser Ser Arg Val Arg Val Asn Lys
450 455 460

Met Thr Ala Ile Pro Ser
465 470

<210> 440

<211> 760

<212> PRT

<213> Mus sp.

<400> 440

Met Ala Leu Pro Ser Leu Gly Gln Asp Ser Trp Ser Leu Leu Arg Val
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Phe Phe Phe Gln Leu Phe Leu Leu Pro Ser Leu Pro Pro Ala Ser Gly
20 25 30

Thr Gly Gly Gln Gly Pro Met Pro Arg Val Lys Tyr His Ala Gly Asp
35 40 45

Gly His Arg Ala Leu Ser Phe Phe Gln Gln Lys Gly Leu Arg Asp Phe
50 55 60

Asp Thr Leu Leu Leu Ser Asp Asp Gly Asn Thr Leu Tyr Val Gly Ala
65 70 75 80

Arg	Glu	Thr	Val	Leu	Ala	Leu	Asn	Ile	Gln	Asn	Pro	Gly	Ile	Pro	Arg	85	90	95
Leu	Lys	Asn	Met	Ile	Pro	Trp	Pro	Ala	Ser	Glu	Arg	Lys	Lys	Thr	Glu	100	105	110
Cys	Ala	Phe	Lys	Lys	Lys	Ser	Asn	Glu	Thr	Gln	Cys	Phe	Asn	Phe	Ile	115	120	125
Arg	Val	Leu	Val	Ser	Tyr	Asn	Ala	Thr	His	Leu	Tyr	Ala	Cys	Gly	Thr	130	135	140
Phe	Ala	Phe	Ser	Pro	Ala	Cys	Thr	Phe	Ile	Glu	Leu	Gln	Asp	Ser	Leu	145	150	155
Leu	Leu	Pro	Ile	Leu	Ile	Asp	Lys	Val	Met	Asp	Gly	Lys	Gly	Gln	Ser	165	170	175
Pro	Leu	Thr	Leu	Phe	Thr	Ser	Thr	Gln	Ala	Val	Leu	Val	Asp	Gly	Met	180	185	190
Leu	Tyr	Ser	Gly	Thr	Met	Asn	Asn	Phe	Leu	Gly	Ser	Glu	Pro	Ile	Leu	195	200	205
Met	Arg	Thr	Leu	Gly	Ser	His	Pro	Val	Leu	Lys	Thr	Asp	Ile	Phe	Leu	210	215	220
Arg	Trp	Leu	His	Ala	Asp	Ala	Ser	Phe	Val	Ala	Ala	Ile	Pro	Ser	Thr	225	230	235
Gln	Val	Val	Tyr	Phe	Phe	Phe	Glu	Glu	Thr	Ala	Ser	Glu	Phe	Asp	Phe	245	250	255
Phe	Glu	Glu	Leu	Tyr	Ile	Ser	Arg	Val	Ala	Gln	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Glu	Lys	Leu	Leu	Gln	Lys	Lys	Trp	Thr	Thr	Phe	Leu	Lys	275	280	285
Ala	Gln	Leu	Leu	Cys	Ala	Gln	Pro	Gly	Gln	Leu	Pro	Phe	Asn	Ile	Ile	290	295	300
Arg	His	Ala	Val	Leu	Leu	Pro	Ala	Asp	Ser	Pro	Ser	Val	Ser	Arg	Ile	305	310	315
Tyr	Ala	Val	Phe	Thr	Ser	Gln	Trp	Gln	Val	Gly	Gly	Thr	Arg	Ser	Ser	325	330	335

Ala	Val	Cys	Ala	Phe	Ser	Leu	Thr	Asp	Ile	Glu	Arg	Val	Phe	Lys	Gly	
340			345						350							
Lys	Tyr	Lys	Glu	Leu	Asn	Lys	Glu	Thr	Ser	Arg	Trp	Thr	Thr	Tyr	Arg	
355			360						365							
Gly	Ser	Glu	Val	Ser	Pro	Arg	Pro	Gly	Ser	Cys	Ser	Met	Gly	Pro	Ser	
370			375						380							
Ser	Asp	Lys	Ala	Leu	Thr	Phe	Met	Lys	Asp	His	Phe	Leu	Met	Asp	Glu	
385			390						395						400	
His	Val	Val	Gly	Thr	Pro	Leu	Leu	Val	Lys	Ser	Gly	Val	Glu	Tyr	Thr	
405				410						415						
Arg	Leu	Ala	Val	Glu	Ser	Ala	Arg	Gly	Leu	Asp	Gly	Ser	Ser	His	Val	
420			425						430							
Val	Met	Tyr	Leu	Gly	Thr	Ser	Thr	Gly	Pro	Leu	His	Lys	Ala	Val	Val	
435			440						445							
Pro	Gln	Asp	Ser	Ser	Ala	Tyr	Leu	Val	Glu	Glu	Ile	Gln	Leu	Ser	Pro	
450			455						460							
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465			470						475						480	
Val	Phe	Ala	Gly	Phe	Ser	Gly	Gly	Ile	Trp	Arg	Val	Pro	Arg	Ala	Asn	
485				490						495						
Cys	Ser	Val	Tyr	Glu	Ser	Cys	Val	Asp	Cys	Val	Leu	Ala	Arg	Asp	Pro	
500			505						510							
His	Cys	Ala	Trp	Asp	Pro	Glu	Ser	Arg	Leu	Cys	Ser	Leu	Leu	Ser	Gly	
515			520						525							
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530			535						540							
Val	Cys	Thr	Arg	Gly	Pro	Met	Ala	Arg	Ser	Pro	Arg	Arg	Gln	Ser	Pro	
545			550						555						560	
Pro	Gln	Leu	Ile	Lys	Glu	Val	Leu	Thr	Val	Pro	Asn	Ser	Ile	Leu	Glu	
565				570						575						
Leu	Arg	Cys	Pro	His	Leu	Ser	Ala	Leu	Ala	Ser	Tyr	His	Trp	Ser	His	
580			585						590							

Gly Arg Ala Lys Ile Ser Glu Ala Ser Ala Thr Val Tyr Asn Gly Ser
595 600 605

Leu Leu Leu Leu Pro Gln Asp Gly Val Gly Gly Leu Tyr Gln Cys Val
610 615 620

Ala Thr Glu Asn Gly Tyr Ser Tyr Pro Val Val Ser Tyr Trp Val Asp
625 630 635 640

Ser Gln Asp Gln Pro Leu Ala Leu Asp Pro Glu Leu Ala Gly Val Pro
645 650 655

Arg Glu Arg Val Gln Val Pro Leu Thr Arg Val Gly Gly Gly Ala Ser
660 665 670

Met Ala Ala Gln Arg Ser Tyr Trp Pro His Phe Leu Ile Val Thr Val
675 680 685

Leu Leu Ala Ile Val Leu Leu Gly Val Leu Thr Leu Leu Leu Ala Ser
690 695 700

Pro Leu Gly Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Gly Met
705 710 715 720

Leu Pro Pro Arg Glu Lys Ala Pro Leu Ser Arg Asp Gln His Leu Gln
725 730 735

Pro Ser Lys Asp His Arg Thr Ser Ala Ser Asp Val Asp Ala Asp Asn
740 745 750

Asn His Leu Gly Ala Glu Val Ala
755 760

<210> 441

<211> 3046

<212> PRT

<213> Mus sp.

<400> 441

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Gly Gly Gly Gly Ala Ala Cys Cys Ala Thr Cys Thr Gly Gly Thr Gly

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Ala Thr Ala Gly	Ala Cys Ala Ala Gly	Gly Gly Thr Cys Ala Thr Gly	Gly			
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Ala Cys Gly Gly Gly	Ala Ala Gly Gly Gly	Cys Cys Ala Ala Ala Gly				
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Cys Cys Cys Thr Thr Thr	Gly Ala Cys Cys Cys Thr	Gly Thr Thr Cys				
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Gly Cys Thr Thr Thr	Ala Thr Thr Cys Cys Gly	Gly Gly Cys Ala Cys Cys				
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	660	665	670			
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	675	680	685			
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	690	695	700			
Thr Cys Cys Cys Ala Thr	Cys Cys Thr Gly Thr Thr	Cys Thr Cys Ala				
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Ala Gly Ala Cys Thr Gly	Ala Cys Ala Thr Cys Thr Thr	Cys Thr Thr				
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Ala Cys Gly Cys Thr Gly	Gly Gly Cys Thr Gly Cys Ala Cys	Gly Cys Gly				
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	755	760	765			
Cys Ala Gly Cys Cys Ala Thr	Thr Cys Cys Ala Thr Cys Cys Ala Cys					
	770	775	780			
Cys Cys Ala Gly Gly Thr	Cys Gly Thr Cys Thr Ala Thr Thr Thr	Cys				
	785	790	795		800	
Thr Thr Cys Thr Thr Thr	Gly Ala Gly Gly Ala Gly Ala Cys Ala Gly					

Ala Gly Cys Ala Gly Thr Cys Thr Gly Thr Gly Cys Cys Thr Thr Cys		
1075	1080	1085
Thr Cys Thr Cys Thr Cys Ala Cys Gly Gly Ala Cys Ala Thr Thr Gly		
1090	1095	1100
Ala Gly Cys Gly Ala Gly Thr Cys Thr Thr Thr Ala Ala Ala Gly Gly		
1105	1110	1115 1120
Gly Ala Ala Gly Thr Ala Cys Ala Ala Gly Gly Ala Gly Cys Thr Gly		
	1125 1130	1135
Ala Ala Cys Ala Ala Gly Gly Ala Gly Ala Cys Cys Thr Cys Cys Cys		
	1140 1145	1150
Gly Cys Thr Gly Gly Ala Cys Cys Ala Cys Thr Thr Ala Cys Cys Gly		
	1155 1160	1165
Gly Gly Gly Cys Thr Cys Ala Gly Ala Gly Gly Thr Cys Ala Gly Cys		
	1170 1175	1180
Cys Cys Gly Ala Gly Gly Cys Cys Ala Gly Gly Cys Ala Gly Thr Thr		
1185	1190 1195	1200
Gly Cys Thr Cys Cys Ala Thr Gly Gly Gly Cys Cys Cys Cys Thr Cys		
	1205 1210	1215
Cys Thr Cys Thr Gly Ala Cys Ala Ala Ala Gly Cys Cys Thr Thr Gly		
	1220 1225	1230
Ala Cys Cys Thr Thr Cys Ala Thr Gly Ala Ala Gly Gly Ala Cys Cys		
	1235 1240	1245
Ala Thr Thr Thr Thr Cys Thr Gly Ala Thr Gly Gly Ala Thr Gly Ala		
	1250 1255	1260
Gly Cys Ala Cys Gly Thr Gly Gly Thr Ala Gly Gly Ala Ala Cys Ala		
1265	1270 1275	1280
Cys Cys Cys Cys Thr Gly Cys Thr Gly Gly Thr Gly Ala Ala Gly Thr		
	1285 1290	1295
Cys Thr Gly Gly Thr Gly Thr Gly Gly Ala Gly Thr Ala Cys Ala Cys		
	1300 1305	1310
Ala Cys Gly Gly Cys Thr Thr Gly Cys Thr Gly Thr Gly Gly Ala Gly		

1570	1575	1580
Thr Gly Cys Thr Thr Gly Cys Cys Ala Gly Gly Gly Ala Cys Cys Cys		
1585	1590	1595 1600
Thr Cys Ala Cys Thr Gly Thr Gly Cys Cys Thr Gly Gly Gly Ala Cys		
1605	1610	1615
Cys Cys Thr Gly Ala Ala Thr Cys Ala Ala Gly Ala Cys Thr Cys Thr		
1620	1625	1630
Gly Cys Ala Gly Cys Cys Thr Thr Cys Thr Gly Thr Cys Thr Gly Gly		
1635	1640	1645
Cys Thr Cys Thr Ala Cys Cys Ala Ala Gly Cys Cys Thr Thr Gly Gly		
1650	1655	1660
Ala Ala Gly Cys Ala Gly Gly Ala Cys Ala Thr Gly Gly Ala Ala Cys		
1665	1670	1675 1680
Gly Cys Gly Gly Cys Ala Ala Cys Cys Cys Gly Gly Ala Gly Thr Gly		
1685	1690	1695
Gly Gly Thr Ala Thr Gly Cys Ala Cys Cys Cys Gly Thr Gly Gly Cys		
1700	1705	1710
Cys Cys Cys Ala Thr Gly Gly Cys Cys Ala Gly Gly Ala Gly Cys Cys		
1715	1720	1725
Cys Cys Cys Gly Gly Cys Gly Thr Cys Ala Gly Ala Gly Cys Cys Cys		
1730	1735	1740
Cys Cys Cys Thr Cys Ala Ala Cys Thr Ala Ala Thr Thr Ala Ala Ala		
1745	1750	1755 1760
Gly Ala Ala Gly Thr Cys Cys Thr Gly Ala Cys Ala Gly Thr Cys Cys		
1765	1770	1775
Cys Cys Ala Ala Cys Thr Cys Cys Ala Thr Cys Cys Thr Gly Gly Ala		
1780	1785	1790
Gly Cys Thr Gly Cys Gly Cys Thr Gly Cys Cys Cys Cys Cys Ala Cys		
1795	1800	1805
Cys Thr Gly Thr Cys Ala Gly Cys Ala Cys Thr Gly Gly Cys Cys Thr		
1810	1815	1820
Cys Thr Thr Ala Cys Cys Ala Cys Thr Gly Gly Ala Gly Thr Cys Ala		

1825	1830	1835	1840
Thr Gly Gly Cys Cys Gly Ala Gly Cys Cys Ala Ala Ala Ala Thr Cys	1845	1850	1855
Thr Cys Ala Gly Ala Ala Gly Cys Cys Thr Cys Thr Gly Cys Thr Ala	1860	1865	1870
Cys Cys Gly Thr Cys Thr Ala Cys Ala Ala Thr Gly Gly Cys Thr Cys	1875	1880	1885
Cys Cys Thr Cys Thr Thr Gly Cys Thr Gly Cys Thr Gly Cys Cys Gly	1890	1895	1900
Cys Ala Gly Gly Ala Thr Gly Gly Thr Gly Thr Cys Gly Gly Gly Gly	1905	1910	1915
Gly Cys Cys Thr Cys Thr Ala Cys Cys Ala Gly Thr Gly Thr Gly Thr	1925	1930	1935
Gly Gly Cys Gly Ala Cys Thr Gly Ala Gly Ala Ala Cys Gly Gly Cys	1940	1945	1950
Thr Ala Cys Thr Cys Ala Thr Ala Cys Cys Cys Thr Gly Thr Gly Gly	1955	1960	1965
Thr Cys Thr Cys Cys Thr Ala Thr Thr Gly Gly Gly Thr Ala Gly Ala	1970	1975	1980
Cys Ala Gly Cys Cys Ala Gly Gly Ala Cys Cys Ala Gly Cys Cys Cys	1985	1990	1995
Cys Thr Gly Gly Cys Gly Cys Thr Gly Gly Ala Cys Cys Cys Thr Gly	2005	2010	2015
Ala Gly Cys Thr Gly Gly Cys Gly Gly Gly Cys Gly Thr Thr Cys Cys	2020	2025	2030
Cys Cys Gly Thr Gly Ala Gly Cys Gly Thr Gly Thr Gly Cys Ala Gly	2035	2040	2045
Gly Thr Cys Cys Cys Gly Cys Thr Gly Ala Cys Cys Ala Gly Gly Gly	2050	2055	2060
Thr Cys Gly Gly Ala Gly Gly Cys Gly Gly Ala Gly Cys Thr Thr Cys	2065	2070	2075
Cys Ala Thr Gly Gly Cys Thr Gly Cys Cys Cys Ala Gly Cys Gly Gly			2080

2085	2090	2095
Thr Cys Cys Thr Ala Cys Thr Gly Gly Cys Cys Cys Cys Ala Thr Thr 2100 2105 2110		
Thr Thr Cys Thr Cys Ala Thr Cys Gly Thr Thr Ala Cys Cys Gly Thr 2115 2120 2125		
Cys Cys Thr Cys Cys Thr Gly Gly Cys Cys Ala Thr Cys Gly Thr Gly 2130 2135 2140		
Cys Thr Cys Cys Thr Gly Gly Gly Ala Gly Thr Gly Cys Thr Cys Ala 2145 2150 2155 2160		
Cys Thr Cys Thr Cys Cys Thr Cys Cys Thr Cys Gly Cys Thr Thr Cys 2165 2170 2175		
Cys Cys Cys Ala Cys Thr Gly Gly Gly Gly Gly Cys Gly Cys Thr Gly 2180 2185 2190		
Cys Gly Gly Gly Cys Thr Cys Gly Gly Gly Gly Thr Ala Ala Gly Gly 2195 2200 2205		
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Gly Cys Cys Cys Thr Cys Cys Ala Ala Gly Gly Ala Cys Cys Ala Cys 2275 2280 2285		
Ala Gly Gly Ala Cys Cys Thr Cys Thr Gly Cys Cys Ala Gly Thr Gly 2290 2295 2300		
Ala Cys Gly Thr Ala Gly Ala Thr Gly Cys Cys Gly Ala Cys Ala Ala 2305 2310 2315 2320		
Cys Ala Ala Cys Cys Ala Thr Cys Thr Gly Gly Gly Cys Gly Cys Cys 2325 2330 2335		
Gly Ala Ala Gly Thr Gly Gly Cys Thr Thr Ala Ala Ala Cys Ala Gly		

2850	2855	2860
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Cys Cys Thr Thr Gly Thr Cys Cys Ala Gly Thr Gly Thr Gly Gly Cys		
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Thr Gly Ala Cys Cys Cys Thr Thr Gly Ala Cys Cys Thr Cys Thr Thr		
2945	2950	2955 2960
Cys Cys Thr Thr Cys Cys Thr Cys Cys Thr Cys Cys Cys Thr Thr Thr		
2965	2970	2975
Gly Thr Thr Thr Thr Gly Gly Gly Ala Thr Thr Cys Ala Gly Ala Ala		
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Ala Ala Cys Thr Gly Cys Thr Thr Gly Thr Cys Ala Cys Ala Gly Ala		
2995	3000	3005
Cys Ala Ala Thr Thr Thr Ala Thr Thr Thr Thr Thr Thr Ala Thr Thr		
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Thr Thr Ala Ala Ala Gly		
3045		

<210> 442
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<210> 443
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Lys Thr Phe Tyr Ala Leu Ala Pro Val Ala Thr Val Lys Tyr Thr Lys
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Ser Leu Ile Asn Lys Leu Arg Phe Val Pro Gln Ser Leu Phe Lys Phe
210 215 220

Ile Phe Gly Asp Lys Ile Phe Tyr Pro His Asn Phe Phe Asp Gln Phe
225 230 235 240

Leu Ala Thr Glu Val Cys Ser Arg Glu Met Leu Asn Leu Leu Cys Ser
245 250 255

Asn Ala Leu Phe Ile Ile Cys Gly Phe Asp Ser Lys Asn Phe Asn Thr
260 265 270

Ser Arg Leu Asp Val Tyr Leu Ser His Asn Pro Ala Gly Thr Ser Val
275 280 285

Gln Asn Met Phe His Trp Thr Gln Ala Val Lys Ser Gly Lys Phe Gln
290 295 300

Ala Tyr Asp Trp Gly Ser Pro Val Gln Asn Arg Met His Tyr Asp Gln
305 310 315 320

Ser Gln Pro Pro Tyr Tyr Asn Val Thr Ala Met Asn Val Pro Ile Ala
325 330 335

Val Trp Asn Gly Gly Lys Asp Leu Leu Ala Asp Pro Gln Asp Val Gly
340 345 350

Leu Leu Leu Pro Lys Leu Pro Asn Leu Ile Tyr His Lys Glu Ile Pro
355 360 365

Phe Tyr Asn His Leu Asp Phe Ile Trp Ala Met Asp Ala Pro Gln Glu
370 375 380

Val Tyr Asn Asp Ile Val Ser Met Ile Ser Glu Asp Lys Lys
385 390 395

<210> 446

<211> 760

<212> PRT

<213> Mus sp.

<400> 446

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Thr Gly Gly Gln Gly Pro Met Pro Arg Val Lys Tyr His Ala Gly Asp
35 40 45

Gly His Arg Ala Leu Ser Phe Phe Gln Gln Lys Gly Leu Arg Asp Phe
50 55 60

Asp Thr Leu Leu Leu Ser Asp Asp Gly Asn Thr Leu Tyr Val Gly Ala
65 70 75 80

Arg Glu Thr Val Leu Ala Leu Asn Ile Gln Asn Pro Gly Ile Pro Arg
85 90 95

Leu Lys Asn Met Ile Pro Trp Pro Ala Ser Glu Arg Lys Lys Thr Glu
100 105 110

Cys Ala Phe Lys Lys Lys Ser Asn Glu Thr Gln Cys Phe Asn Phe Ile
115 120 125

Arg Val Leu Val Ser Tyr Asn Ala Thr His Leu Tyr Ala Cys Gly Thr
130 135 140

Phe Ala Phe Ser Pro Ala Cys Thr Phe Ile Glu Leu Gln Asp Ser Leu
145 150 155 160

Leu Leu Pro Ile Leu Ile Asp Lys Val Met Asp Gly Lys Gly Gln Ser
165 170 175

Pro Leu Thr Leu Phe Thr Ser Thr Gln Ala Val Leu Val Asp Gly Met
180 185 190

Leu Tyr Ser Gly Thr Met Asn Asn Phe Leu Gly Ser Glu Pro Ile Leu
195 200 205

Met Arg Thr Leu Gly Ser His Pro Val Leu Lys Thr Asp Ile Phe Leu
210 215 220

Arg Trp Leu His Ala Asp Ala Ser Phe Val Ala Ala Ile Pro Ser Thr
225 230 235 240

Gln Val Val Tyr Phe Phe Phe Glu Glu Thr Ala Ser Glu Phe Asp Phe
245 250 255

Phe Glu Glu Leu Tyr Ile Ser Arg Val Ala Gln Val Cys Lys Asn Asp
260 265 270

Ser Thr Lys Pro Trp Lys Gln Asp Met Glu Arg Gly Asn Pro Glu Trp
 530 535 540
 Val Cys Thr Arg Gly Pro Met Ala Arg Ser Pro Arg Arg Gln Ser Pro
 545 550 555 560
 Pro Gln Leu Ile Lys Glu Val Leu Thr Val Pro Asn Ser Ile Leu Glu
 565 570 575
 Leu Arg Cys Pro His Leu Ser Ala Leu Ala Ser Tyr His Trp Ser His
 580 585 590
 Gly Arg Ala Lys Ile Ser Glu Ala Ser Ala Thr Val Tyr Asn Gly Ser
 595 600 605
 Leu Leu Leu Leu Pro Gln Asp Gly Val Gly Gly Leu Tyr Gln Cys Val
 610 615 620
 Ala Thr Glu Asn Gly Tyr Ser Tyr Pro Val Val Ser Tyr Trp Val Asp
 625 630 635 640
 Ser Gln Asp Gln Pro Leu Ala Leu Asp Pro Glu Leu Ala Gly Val Pro
 645 650 655
 Arg Glu Arg Val Gln Val Pro Leu Thr Arg Val Gly Gly Gly Ala Ser
 660 665 670
 Met Ala Ala Gln Arg Ser Tyr Trp Pro His Phe Leu Ile Val Thr Val
 675 680 685
 Leu Leu Ala Ile Val Leu Leu Gly Val Leu Thr Leu Leu Leu Ala Ser
 690 695 700
 Pro Leu Gly Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Gly Met
 705 710 715 720
 Leu Pro Pro Arg Glu Lys Ala Pro Leu Ser Arg Asp Gln His Leu Gln
 725 730 735
 Pro Ser Lys Asp His Arg Thr Ser Ala Ser Asp Val Asp Ala Asp Asn
 740 745 750
 Asn His Leu Gly Ala Glu Val Ala
 755 760

<210> 447

<211> 3046
 <212> DNA
 <213> Mus sp.

<400> 447

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<210> 448

<211> 1436

<212> PRT

<213> Bovine

<400> 448

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Leu Gly Thr Met Val Gly Gly Gln Ala Leu Glu Leu Arg Leu Lys Asp
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Gly Val His Arg Cys Glu Gly Arg Val Glu Val Lys His Gln Gly Glu
      35                      40                     45

Trp Gly Thr Val Asp Gly Tyr Arg Trp Thr Leu Lys Asp Ala Ser Val
      50                      55                     60

Val Cys Arg Gln Leu Gly Cys Gly Ala Ala Ile Gly Phe Pro Gly Gly
      65                      70                     75                     80

Ala Tyr Phe Gly Pro Gly Leu Gly Pro Ile Trp Leu Leu Tyr Thr Ser
      85                      90                     95

Cys Glu Gly Thr Glu Ser Thr Val Ser Asp Cys Glu His Ser Asn Ile
      100                     105                     110

Lys Asp Tyr Arg Asn Asp Gly Tyr Asn His Gly Arg Asp Ala Gly Val
      115                     120                     125

Val Cys Ser Gly Phe Val Arg Leu Ala Gly Gly Asp Gly Pro Cys Ser
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Gly Arg Val Glu Val His Ser Gly Glu Ala Trp Ile Pro Val Ser Asp
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Gly Asn Phe Thr Leu Ala Thr Ala Gln Ile Ile Cys Ala Glu Leu Gly
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Ala Leu Glu Ala Val Arg Ser Ala Ala Phe Gly Pro Gly Asn Gly Ser
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Ile Trp Leu Asp Glu Val Gln Cys Gly Gly Arg Glu Ser Ser Leu Trp
 1220 1225 1230

Asp Cys Val Ala Glu Pro Trp Gly Gln Ser Asp Cys Lys His Glu Glu
 1235 1240 1245

Asp Ala Gly Val Arg Cys Ser Gly Val Arg Thr Thr Leu Pro Thr Thr
 1250 1255 1260

Thr Ala Gly Thr Arg Thr Thr Ser Asn Ser Leu Pro Gly Ile Phe Ser
 1265 1270 1275 1280

Leu Pro Gly Val Leu Cys Leu Ile Leu Gly Ser Leu Leu Phe Leu Val
 1285 1290 1295

Leu Val Ile Leu Val Thr Gln Leu Leu Arg Trp Arg Ala Glu Arg Arg
 1300 1305 1310

Ala Leu Ser Ser Tyr Glu Asp Ala Leu Ala Glu Ala Val Tyr Glu Glu
 1315 1320 1325

Leu Asp Tyr Leu Leu Thr Gln Lys Glu Gly Leu Gly Ser Pro Asp Gln
 1330 1335 1340

Met Thr Asp Val Pro Asp Glu Asn Tyr Asp Asp Ala Glu Glu Val Pro
 1345 1350 1355 1360

Val Pro Gly Thr Pro Ser Pro Ser Gln Gly Asn Glu Glu Glu Val Pro
 1365 1370 1375

Pro Glu Lys Glu Asp Gly Val Arg Ser Ser Gln Thr Gly Ser Phe Leu
 1380 1385 1390

Asn Phe Ser Arg Glu Ala Ala Asn Pro Gly Glu Gly Glu Glu Ser Phe
 1395 1400 1405

Trp Leu Leu Gln Gly Lys Lys Gly Asp Ala Gly Tyr Asp Asp Val Glu
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Leu Ser Ala Leu Gly Thr Ser Pro Val Thr Phe Ser
 1425 1430 1435

<210> 449


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<210> 450

<211> 12

<212> PRT

<213> Artificial Sequence

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Consensus Sequence

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<223> Residue 1 is L or I or V

<220>

<223> Residue 2 is any amino acid residue

<220>

<223> Residue 3 is L or I or V

<220>
<223> One or both of residues 4 and 5 can be present;
when present, each of residues 4 and 5 is any
amino acid residue

<220>
<223> Residue 7 is any amino acid residue

<220>
<223> Residue 10 is N or H

<220>
<223> Residue 11 is any amino acid residue

<400> 450
Xaa Xaa Xaa Xaa Xaa Asp Xaa Asn Asp Xaa Xaa Pro
1 5 10

<210> 451
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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Consensus Sequence

<220>
<223> Residue 1 is L, I, A, or T

<220>
<223> Each of residues is any amino acid residue

<220>
<223> One or both of residues 6 and 7 can be present;
when present, each of residues 6 and 7 is any
amino acid residue

<220>
<223> Residue 8 is P or E

<220>
<223> Each of residues 9 and 10 is any amino acid
residue

<220>

<223> Residue 11 is L, I, V, M, F, or Y

<220>

<223> Residue 12 is D, E, N, Q, or S

<220>

<223> Residue 13 is S, T, or A

<220>

<223> Residue 14 is A or V

<220>

<223> Residue 15 is L, I, V, M, F, or Y

<400> 451

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<210> 452

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Residue 1 is G, S, T, A, L, I, V, or N

<220>

<223> Each of residues 2 and 3 is any amino acid residue

<220>

<223> Residue 6 is L, I, V, M, F, Y, or W

<220>

<223> Residue 7 is D, E, G, H, R, K, or P

<220>

<223> Residue 9 is any amino acid residue

<220>

<223> Residue 10 is L, I, V, M, F, Y, W, G, S, P, or Q

<400> 452

Xaa Xaa Xaa His Glu Xaa Xaa His Xaa Xaa

1

5

10

<210> 453

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Residue 4 is G or N

<220>

<223> Residue 5 is any amino acid residue

<220>

<223> Residue 7 is D or R

<220>

<223> Residue 8 is L, I, V, S, A, P, K, or Q

<400> 453

Pro Arg Cys Xaa Xaa Pro Xaa Xaa

1

5

<210> 454

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Each of residues 1-12, 14-16, 18, 27, and 29-37 is
any amino acid residue

<220>

<223> Residue 26 is D, E, or N

<220>

<223> Residue 28 is L, I, V, M, F, or Y

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<220>

<223> Residue 38 is F, Y, or W

<400> 454

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa Xaa
1 5 10 15

Glu Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa
35

<210> 455

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Residue 1 is F or Y

<220>

<223> Residue 6 is D, N, or R

<400> 455

Xaa Cys Arg Asn Pro Xaa
1 5

<210> 456

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Each of residues 2-6, 8, 9, 11-16, 22-24, 26-33,
and 35-37 is any amino acid residue

<220>

<223> Residue 25 is F, Y, or W

<400> 456

Gly Xaa Xaa Xaa Xaa Xaa Gly Xaa Xaa Glu Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Trp Gly Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Cys Xaa Xaa Xaa Gly
35

<210> 457

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Domain
Consensus Sequence

<220>

<223> Each of residues 1-3, 5, 8-11, and 15-22 is any
amino acid residue

<220>

<223> Residue 6 can be absent; when present, it is any
amino acid residue

<220>

<223> Residue 13 can be absent; when present, it is any
amino acid residue

<220>

<223> Residue 7 is E or Q

<220>

<223> Residue 12 is L, I, V, or M

<220>

<223> Residue 14 is E, Q, or K

<400> 457

Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro

<210> 458
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Leucine Zipper
 Region of TANGO 366

<400> 458

Leu Asp Leu Ser Gly Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu
 1 5 10 15

Leu His Leu Pro Ala Leu
 20

<210> 459
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Leucine Zipper
 Region of INTERCEPT 217

<400> 459

Leu Ser Cys Thr Gly Leu Gly Leu Gln Asp Val Pro Ala Glu Leu Pro
 1 5 10 15

Ala Ala Thr Ala Asp Leu
 20

<210> 460
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Leucine Zipper
 Region of TANGO 331

<400> 460

Leu Glu Ala Gln Glu Glu His Leu Glu Ala Trp Trp Leu Gln Leu Lys

1

5

10

15

Ser Glu Tyr Pro Asp Leu
20

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